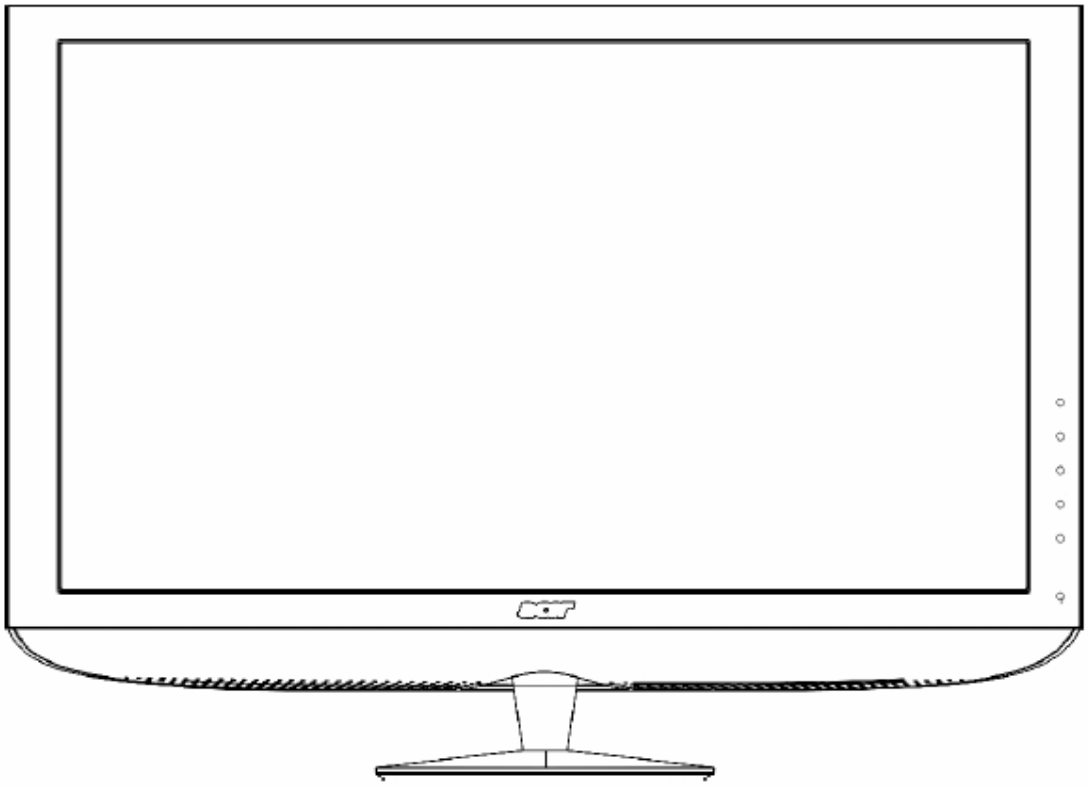

Acer H235H

Service Guide

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Service Guide Version and Revision

Version	Release Date	Revision History	Customer model	TPV model
A00	May.-13-2009	Initial Release	H235H	HD9SA6MK8XAYDC
				HD9GA6MK8XABDC

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Conventions

The following conventions are used in this manual:

Screen messages	Denotes actual messages that appear on screen.
Note	Gives bits and pieces of additional information related to the current topic.
Warning	Alerts you to any damage that might result from doing or not doing specific actions.
Caution	Gives precautionary measures to avoid possible hardware or software problems.
Important	Remind you to do specific actions relevant to the accomplishment of procedures.

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Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office may have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.

2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

Warning: (For FCC Certified Models)

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

Notice:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

   As ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Warning:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerous high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

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Precautions

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, uses a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V AC, Min. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

Special Notes on LCD Monitors

The following symptoms are normal with LCD monitor and do not indicate a problem.

Notes

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

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Monitor Features Chapter 1

Introduction

Scope

This short specification describes the electrical, optical and functional performance requirements for a 63.2cm (23.6”) TFT LCD color monitor with VGA&DVI compatible interface.

Description

The LCD monitor is designed with the latest LCD technology to provide a performance oriented product with no radiation. This will alleviate the growing health concerns. It is also a space saving design, allowing more desktop space, and comparing to the traditional CRT monitor, it consumes less power and gets less weight in addition MTBF target is 50k hours or more.

Chart of H235H

Panel	LTM230HT01 A03(003) SZ SEC
Signal Interface	D-Sub 15pin;DVI 24pin;HDMI
Sync Type	Separate / Compatible
Color Temp User Adjust	Support
DDC	DDC2B
Speaker	Yes
Headphone Jack	Yes
Microphone Jack	No
USB Hub	No
Tilt / Swivel	Yes /No

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Electrical Requirements of H235H

Standard Test Conditions

All tests shall be performed under the following conditions, unless otherwise specified.

Warm up time	＞ 30 min.
AC supply voltage	230V± 5％, 50± 3 Hz
Ambient temperature	20°C ± 5°C
Humidity	65% ± 20%
Display mode	1920 x 1080, 60 Hz, Pixel Clock：148.5MHZ,all white
e-color mode	Set to “User” mode
Contrast control	Set to The value under user mode, which allows that the brightest two of 32 linear distributed gray-scales (0～ 700mv) can be distinguished.
Color temperature	6500°K
Brightness control	The value under user mode
Analog Input signal	700 mVss
Picture position and size	Factory preset value,
Viewing angle	90 ° H and V
Viewing distance	40 cm for LCD performance, 20 cm for LCD failures
Ambient illumination	Dark room < 1 cd/m2

Measurement systems

The units of measure stated in this document are listed below:

1 gamma = 1 nano tesla

1 tesla = 10,000 gauss

cm = in x 2.54

Lb = kg x 2.2

Degrees F = [°C x 1.8] + 32

Degrees C = [°F - 32]/1.8

u' = 4x/(-2x + 12y + 3)

v' = 9y/(-2x + 12y + 3)

x = (27u'/4)/[(9u'/2) - 12v' + 9]

y = (3v')/[(9u'/2) - 12v' + 9]

nits = cd/(m2) = Ft-L x 3.426

lux = foot-candle x 10.76

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LCD Monitor General Specification

LCD Panel	Driving system	TFT Color LCD	
	Size	23"W	
	Pixel pitch	0.265mm(H) x 0.265mm(V)	
	Brightness	300cd/m^2 (Typical)	
	Contrast	100000:1 Max (ACM)	
	Viewable angle	160° (H) 160° (V) (CR=10) / 176° (H) 176° (V) (CR=5)	
	Response time	2 ms	
	Panel Type	TN	
	Video	R, G, B Analog Interface	
	H-Frequency	54.2KHz – 83.8KHz	
	V-Frequency	49-75Hz	
Display Colors		16.7M Colors（6bit+Hi-FRC）	
Dot Clock		165MHz	
Max. Resolution		1920 x 1080 @60Hz	
Plug & Play		VESA DDCCI/DDC2B	
ENERGY STAR	On Mode	34 W (typ.)	
	Sleep Mode	1.2 W (typ.)	
	OFF/Standby Mode	0.9 W (typ.)	
Input Connector		D-Sub	
		DVI-D 24pin	
		HDMI 19pin	
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive	
		Digital signal	
		HDMI signal	
Maximum Screen Size		Horizontal:509.76mm / Vertical: 286.74 mm	
Power Source		100~240VAC, 50/60Hz	
Environmental Considerations		Operating Temp: 0° to 40°C Storage Temp: -20° to 60°C Operating Humidity: 20% to 85%	
MTBF		50000 hrs	
Dimensions(with stand)		569.9(W) x 409.55(H) x 180 (D) mm	
Dimensions(without stand)		569.9 (W) x 362.27(H) x 91.9(D) mm	
Weight (N. W.without stand)		4.48Kg Unit (net)	
Weight (N. W.with stand)		5.12 kg Unit (net)	
Mechanism spec		Tilt: - 5° to +15° Swivel: No Height adjustment: No Pivot: No Detachable foot stand: Yes (by Release button)	
External Controls:	Switch/Buttons	Power Button MENU/ENTER +/-	Auto/ Exit E(Empowering) Key Input Key
	Functions	Contrast Brightness Focus Clock (Warm) Color (Cool) Color RGB Color temperature Language timeout	Auto configuration Wide mode (Full/Aspect) ACM On/Off Input signal Selection DDCCI On/Off Display information Reset Exit

* All specifications are subject to change without notice.

Regulatory Compliance

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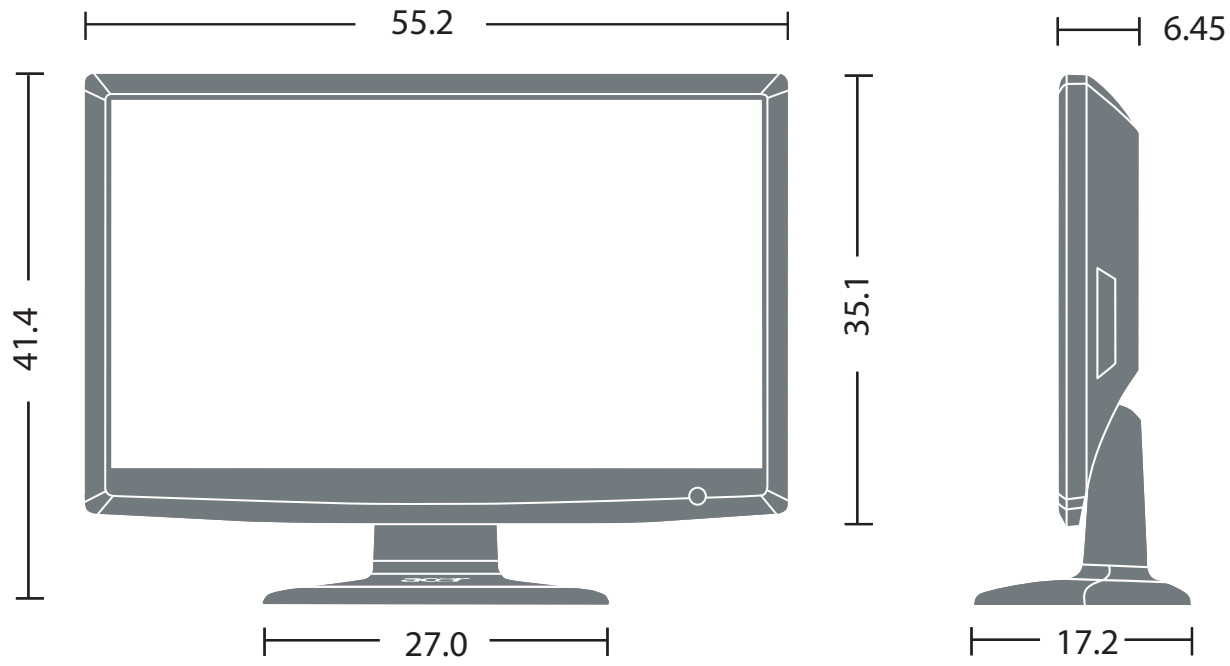

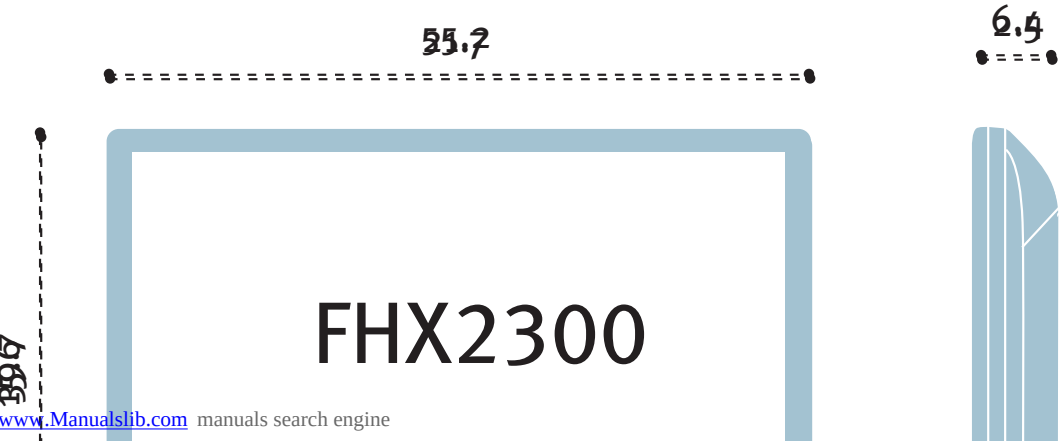

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LCD Panel Specification of H235H

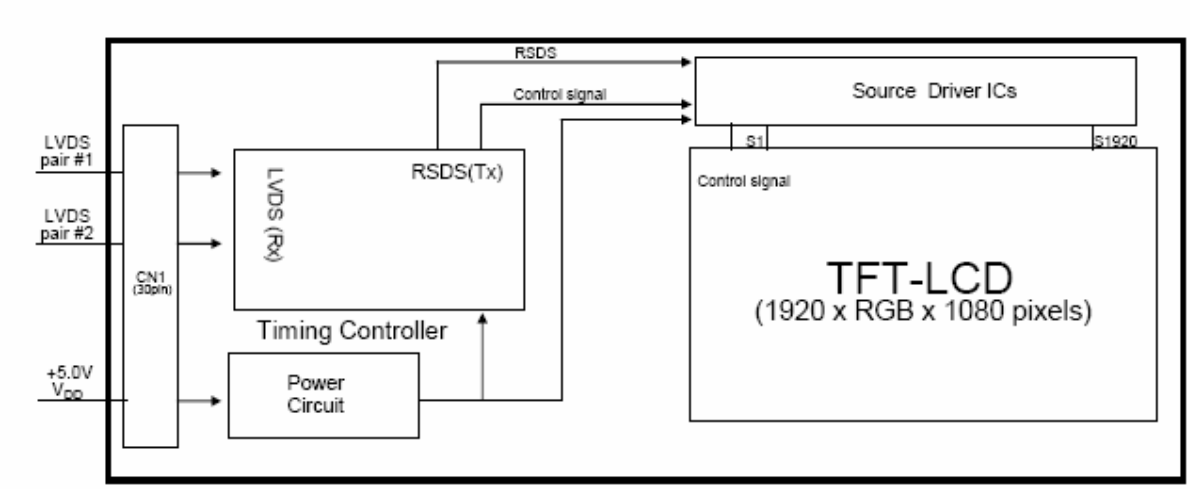
LTM230HT01 is a color active matrix liquid crystal display (LCD) that uses amorphous silicon TFT (Thin Film Transistor) as switching components. This model is composed of a TFT LCD panel, a driver circuit and a back light unit. The resolution of a 23” is 1920 x 1080 and this model can display up to 16.7 millions colors.

General Specifications

Items	Specification	Unit
Pixel Pitch	0.2655(H) x 0.2655(W)	mm
Active Display Area	509.76(H) x 286.74(V)	mm
Surface Treatment	Haze 25% , Hard coating (3H)	
Display Colors	16.7M (Hi-FRC)	colors
Number of Pixels	1,920 x 1,080	pixel
Pixel Arrangement	RGB vertical stripe	
Display Mode	Normally White	
Power Consumption	34.5W	
Luminance of White	300(Typ.)	cd/m²

Block Diagram

TFT LCD Module



Electrical Characteristics

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Item		Symbol	Min.	Typ.	Max.	Unit
Voltage of Power Supply		V_{DD}	4.5	5.0	5.5	V
LVDS Input Characteristics	Differential Input Voltage for LVDS Receiver Threshold	High	-	-	+100	mV
		Low	-100	-	-	mV
	LVDS skew	t_{SKEW}	-300		300	ps
	Differential input voltage	$\|V_{ID}\|$	200		600	mV
	Input voltage range (single-ended)	V_{IN}	0		2.4	V
	Common mode voltage	V_{CM}	0+ $\|V_{ID}\|/2$	1.2	2.4- $\|V_{ID}\|/2$	V
Current of Power Supply	(a) Black	I_{DD}	-	1,600	-	mA
	(b) White		-	1,100	-	mA
	(c) Dot		-	1,800	2,200	mA

Optical Specifications

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Contrast Ratio (Center of screen)		C/R	Normal $\theta_{L,R}=0$ $\theta_{U,D}=0$ Viewing Angle	600	1000	-	
Response Time(On/Off)	On/Off	Tr + Tf		-	5	10	msec
Luminance of White (Center of screen)		Y_L		250	300	-	cd/m^2
Color Chromaticity (CIE 1931)	Red	Rx		0.610	0.640	0.670	
		Ry		0.300	0.330	0.360	
	Green	Gx		0.270	0.300	0.330	
		Gy		0.570	0.600	0.630	
	Blue	Bx		0.120	0.150	0.180	
		By		0.030	0.060	0.090	
	White	Wx		0.283	0.313	0.343	
		Wy		0.299	0.329	0.359	

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Color Chromaticity (CIE 1976)	Red	Ru'		-	0.451	-	
		Rv'		-	0.523	-	
	Green	Gu'		-	0.125	-	
		Gv'		-	0.564	-	
	Blue	Bu'		-	0.175	-	
		Bv'		-	0.158	-	
	White	Wu'		-	0.198	-	
		Wv'		-	0.468	-	
C.G.L (ACC ONLY)	White	△u'v'		-	-	0.02	

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Color Gamut		-		-	72	-	%
Color Temperature		-		-	6500	-	K
Viewing Angle	Hor.	θ_L	CR≥10(5)	70	80	-	Degrees
		θ_R		70	80	-	
	Ver.	θ_U		70	80	-	
		θ_D		70	80	-	
Brightness Uniformity (9 Points)		B_{uni}		-	-	25	%

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Factory Preset Timing of H235H

Mode		Resolution		
1	VGA	640x480	60	Hz
2		640x480	72	Hz
3		640x480	75	Hz
4	MAC	640x480	66.66	Hz
5	VESA	720x400	70	Hz
6	SVGA	800x600	56	Hz
7		800x600	60	Hz
8		800x600	72	Hz
9		800x600	75	Hz
10	MAC	832x624	74.55	Hz
11	XGA	1024x768	60	Hz
12		1024x768	70	Hz
13		1024x768	75	Hz
14	MAC	1152x870	75	Hz
15	VESA	1152x864	75	Hz
16		1280x960	60	Hz
17	SXGA	1280x1024	60	Hz
18		1280x1024	75	Hz
19	VESA	1280x720	60	Hz
20		1280x768	60	Hz
21		1280x768	60	Hz
22	WXGA	1280x800	60	Hz
23		1360x768	60	Hz
24	WXGA+	1440x900	60	Hz
25		1440x900	75	Hz
26	SXGA+	1440x1050	60	Hz
28	WSXGA+	1680x1050	60	Hz
29		1680x1050	75	Hz
30	UXGA	1600x1200	60	Hz
31	VESA	1920x1080	60	Hz

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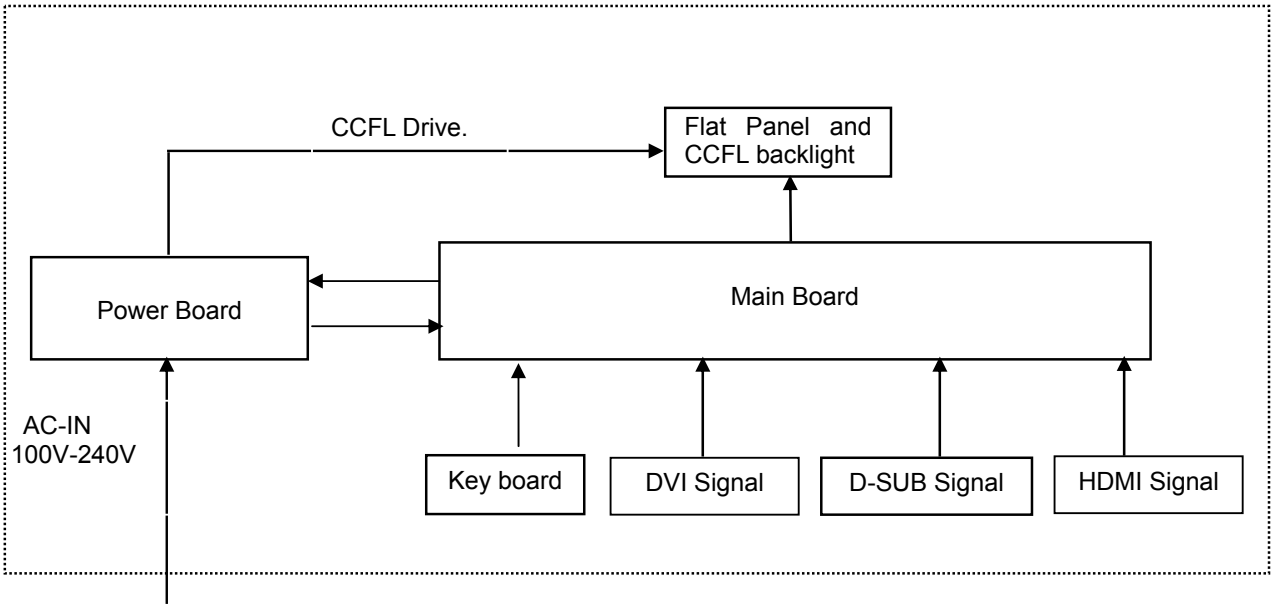
Monitor Block Diagram

The LCD MONITOR will contain a main board, a power board, and a key board which house the flat panel control logic, brightness control logic and DDC.

The power board will provide AC to DC Inverter voltage to drive the backlight of panel and the main board chips each voltage.



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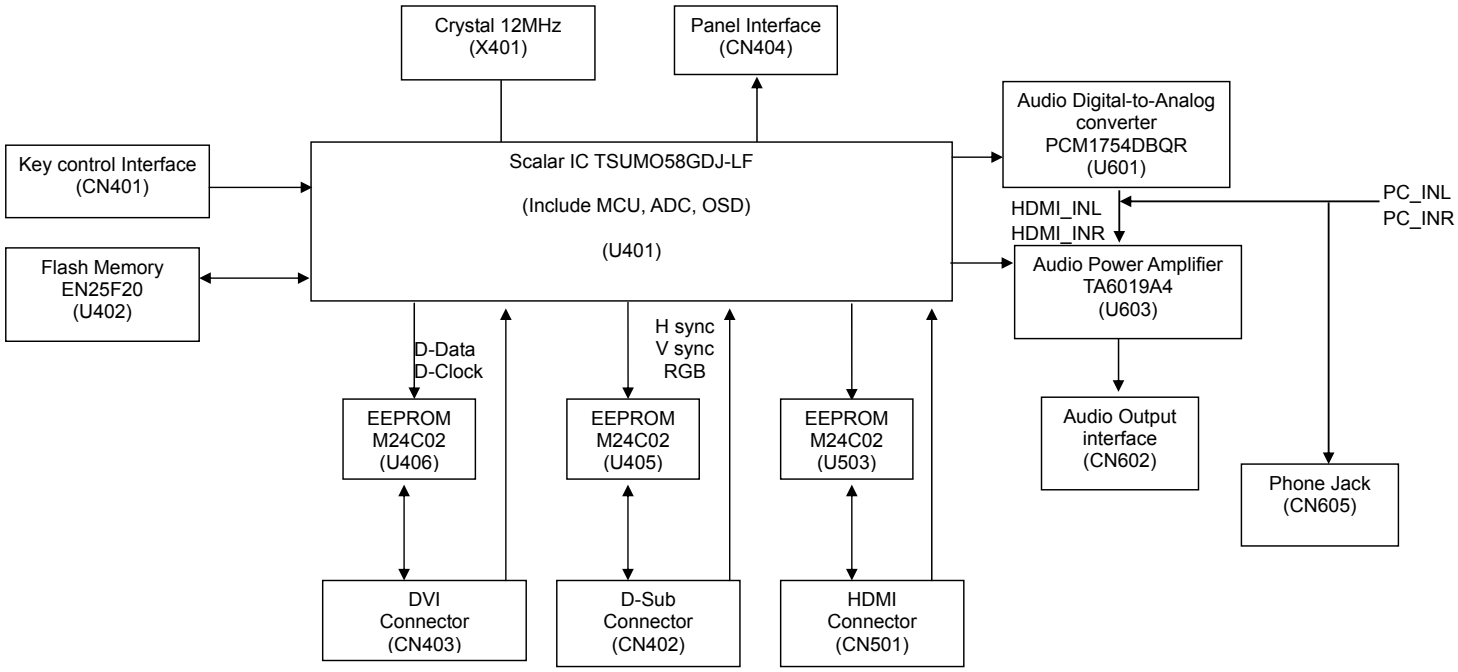
Main Board Diagram



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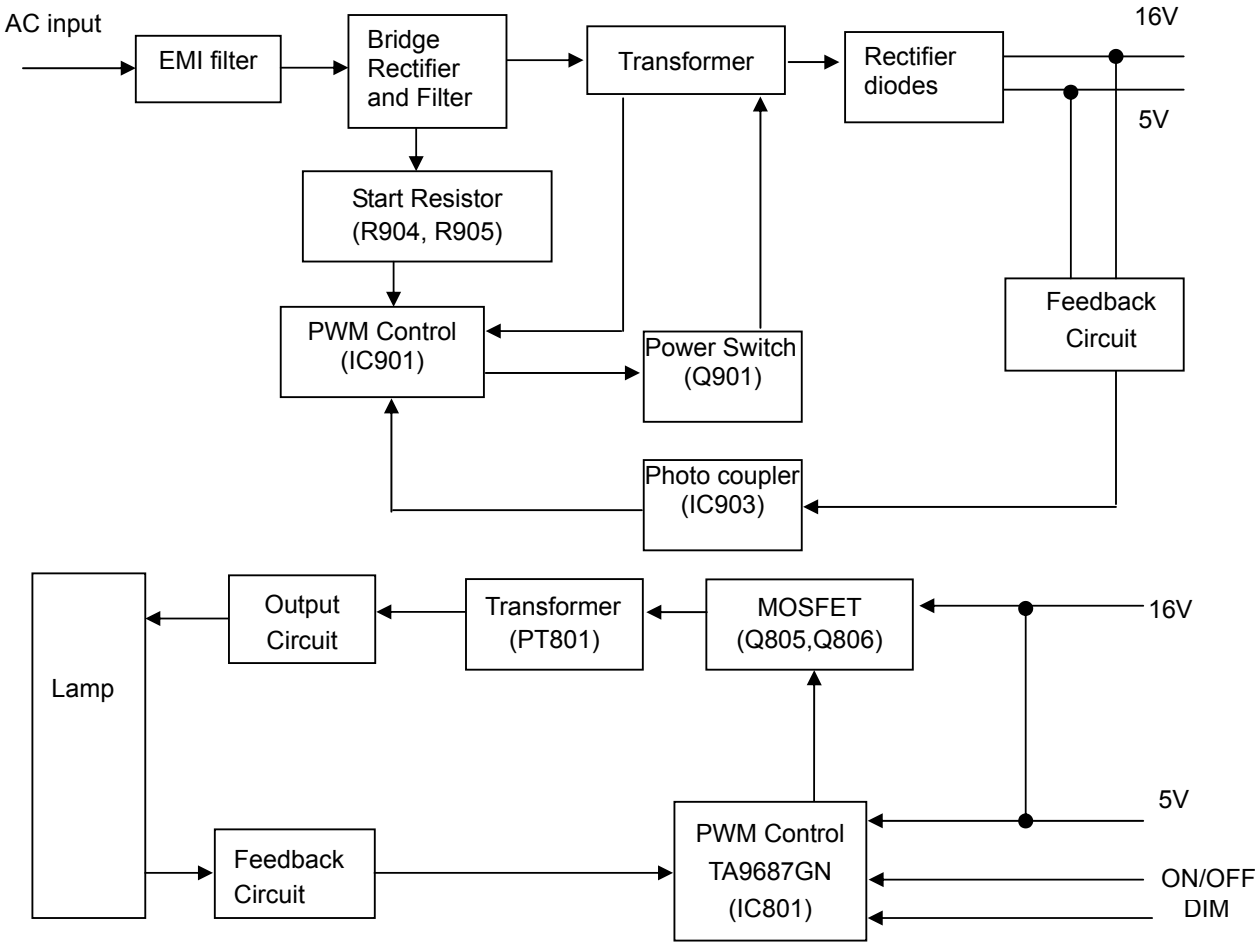
Power Board Diagram



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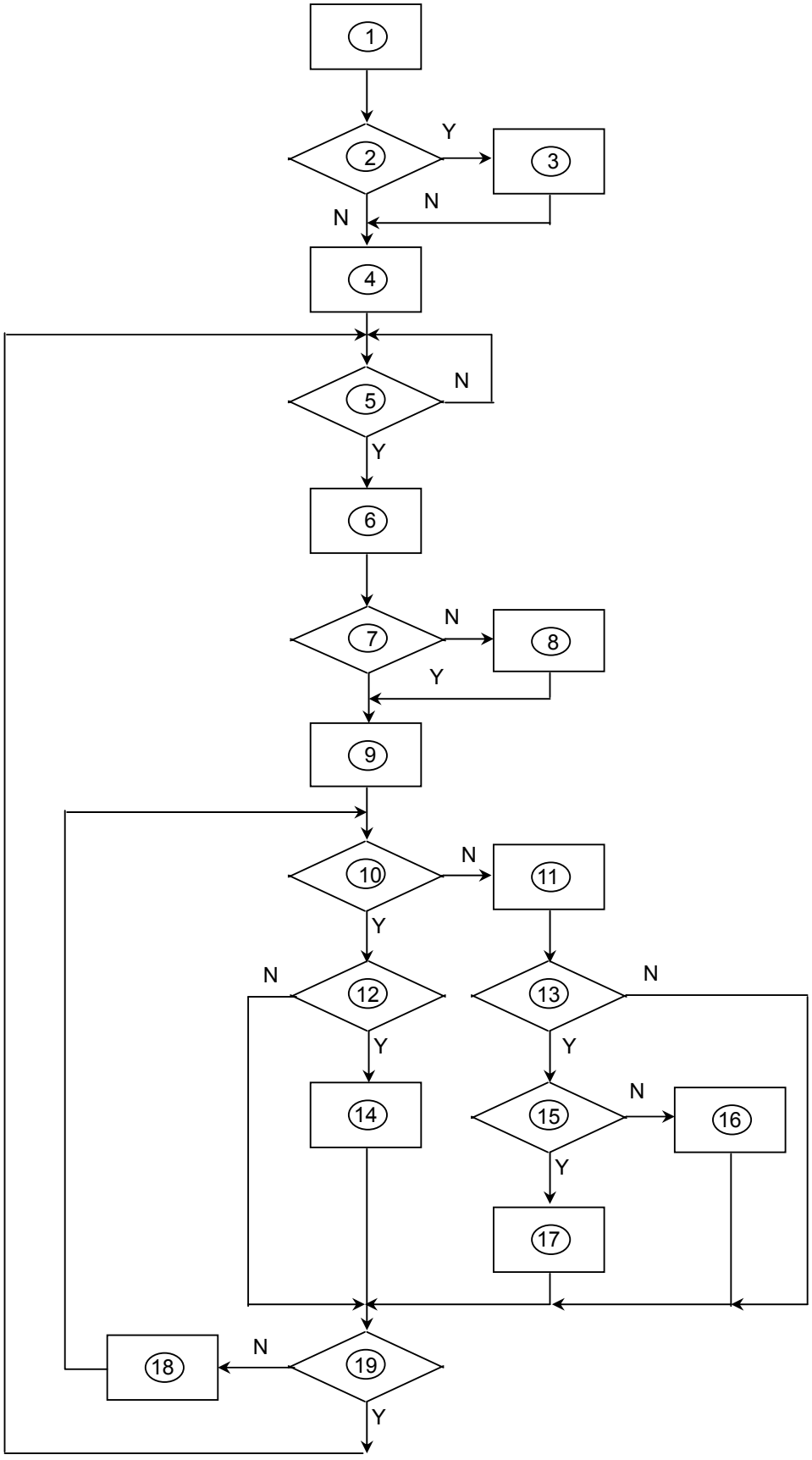
Software Flow Chart



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Remark:

1) MCU initializes.
2) Is the EEPROM blank?
3) Program the EEPROM by default values.
4) Get the PWM value of brightness from EEPROM.
5) Is the power key pressed?
6) Clear all global flags.
7) Are the AUTO and SELECT keys pressed?
8) Enter factory mode.
9) Save the power key status into EEPROM. Turn on the LED and set it to green color. Scalar initializes.
10) In standby mode?
11) Update the lifetime of back light.
12) Check the analog port, are there any signals coming?
13) Does the scalar send out an interrupt request?
14) Wake up the scalar.
15) Are there any signals coming from analog port?
16) Display "No connection Check Signal Cable" message. And go into standby mode after the message disappears.
17) Program the scalar to be able to show the coming mode.
18) Process the OSD display.
19) Read the keyboard. Is the power key pressed?

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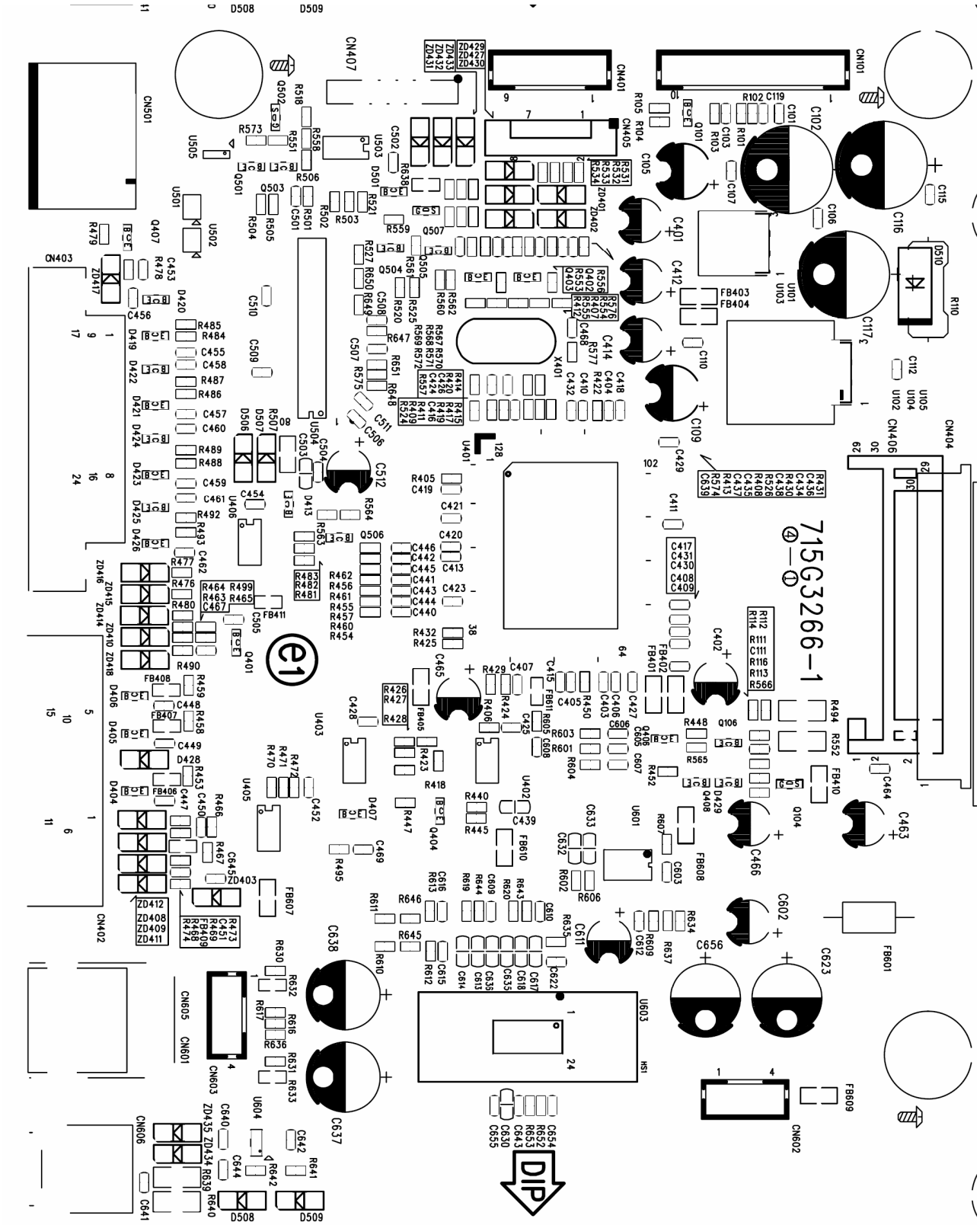
Main Board Layout



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Symbol	Description	Symbol	Description
U401	IC TSUMO58GDJ-LF-1	U601	IC PCM1754DBQR SSOP-16
U402	IC EN25F20-100GCP	U603	IC PA6019A4
X401	14.31818MHZ/32PF/49US0	CN401	WAFER
U405	M24C02-WMN6TP	CN402	D-SUB 15PIN
U406	M24C04-WMN6TP	CN403	DVI 24PIN CONN F
U503	M24C02-WMN6TP	CN501	HDMI HEADER 19P +SCREW HOLE

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Installation

To install the monitor on your host system, please follow the steps below:

Steps

1 Connect the video cable

a Make sure both the monitor and computer are switched off.

b Connect the VGA video cable to the computer.

c Connect the digital cable (only for dual-input models).

(1) Make sure both the monitor and computer are switched off.

(2) Connect one end of the 24-pin DVI* cable to the back of the monitor and the other end to the computer's port.

(3) Connect one end of the 19-pin HDMI* cable to the back of the monitor and the other end to the computer's port.

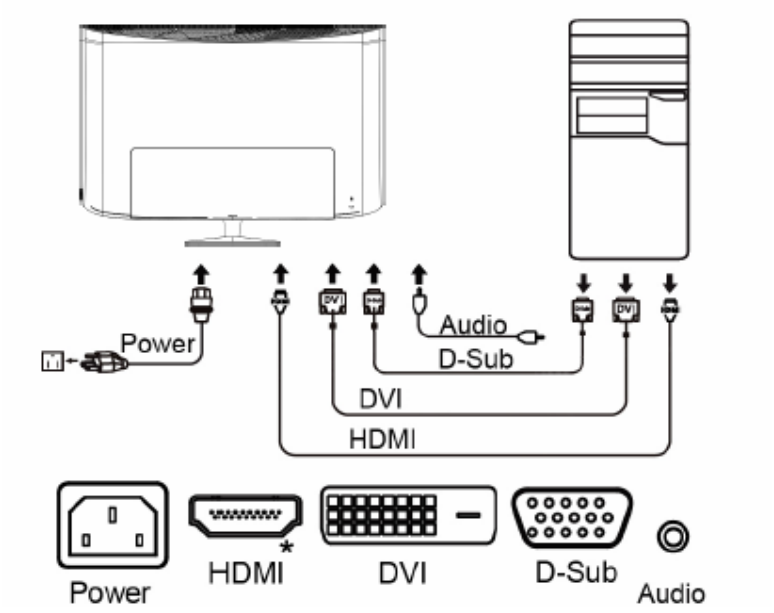
2 Connect the power cord

Connect the power cord to the monitor, then to a properly grounded AC outlet.

3 Turn on the monitor and computer

Turn on the monitor first, then the computer. This sequence is very important.

4 If the monitor does not function properly, please refer to the troubleshooting section to diagnose the problem



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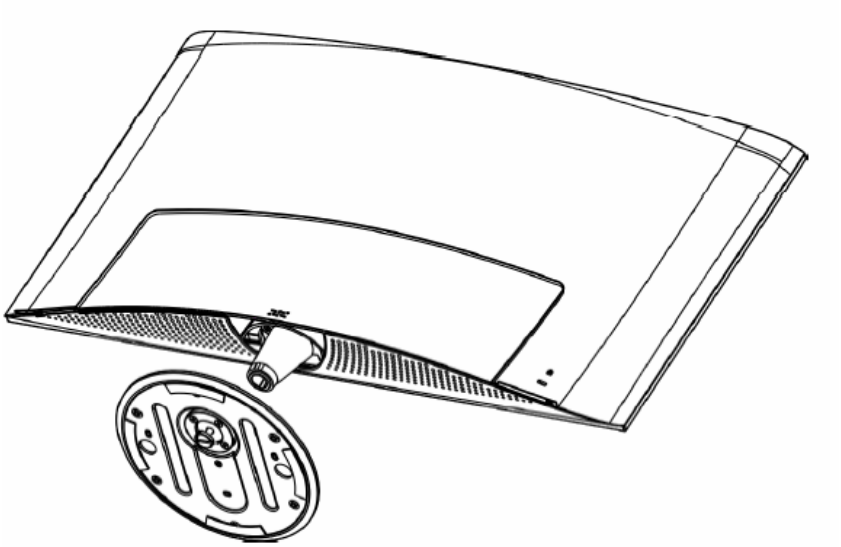
Attaching the Base



1 Attach the monitor stand arm to the base.

2 Ensure that the base is locked onto the monitor stand arm.

SCREEN POSITION ADJUSTMENT

To optimize the viewing position, you can adjust he monitor tilt, using both of your hands to hold the edges of the monitor. The monitor can be adjusted to 15 degrees up or 5 degrees down.

connecting the power cord

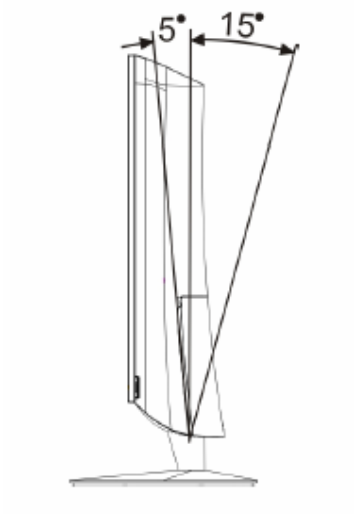
• Check first to make sure that the power cord you use is the correct type required for your area.

• The monitor has a universal power supply hat allows operation in either 100/120 V AC r 220/240 V AC voltage area. No user adjustment s required.

• Plug one end of the power cord to the AC inlet, and plug the other end into an AC outlet.

• For units using 120 V AC:Use a UL-listed cord set, type SVT wire and plug rated 10 A/125 V.

• For units using 220/240 V AC:Use a cord set consisting of H05VV-F cord and plug rated 10 A/250 V. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.



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Press the power button to turn the monitor on or off. The other control buttons are located at front panel of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.

Front panel controls

Icon	Item	Description
⏻	Power button/ indicator	Turns the monitor on/off. White indicates power on. Amber indicates standby/power saving mode.
☰	OSD functions	Press to view the OSD. Press again to enter a selection in the OSD.
AUTO	Auto adjust button/Exit	If the OSD is active, press **Auto** to exit the OSD. Once the OSD is inactive, press **Auto** and the monitor will automatically optimize the display position, focus, and clock of your display.
e	Empowering Key	Press the Empowering Key to open the Acer eColor Management OSD and access the scenario modes. Please refer to "Acer eColor Management" on page 10 for more details.
INPUT	Input Key	Use Input key to select between three different video source that may be connected to your monitor. (a) VGA input (b) DVI-D input (c) HDMI input As you cycle through the inputs you will see the following messages on right top side of screen to indicate currently selected input source. It may take 1 or 2 seconds for the image to appear . VGA or DVI-D or HDMI If either VGA or DVI-D input is selected and both VGA and DVI-D cables are not connected, a floating dialog box as shown below appears: "No Cable Connect" or "No Signal"
🔊±		Press to adjust volume.

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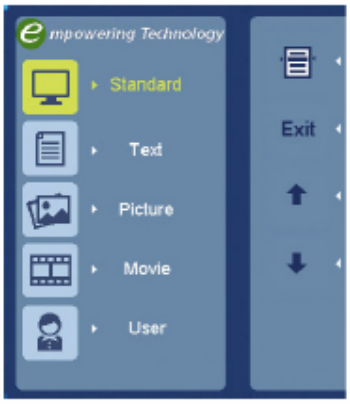
Acer eColor Management

Operation instructions

1 Press the Empowering Key to open the Acer eColor Management OSD and access the scenario modes.



2 Press " ↑ " or " ↓ " to select the mode.

3 Press the Auto-adjust button to confirm the mode and exit Acer eColor Management.

Features and benefits

Main menu icon	Sub menu item	Description
	User mode	User-defined. Settings can be fine-tuned to suit any situation.
	Text mode	Optimal balance of brightness and contrast to prevent eyestrain. The most comfortable way to read onscreen text.
	Standard mode	Default settings. Reflects native display capability.
	Graphic mode	Enhances colors and emphasizes fine detail. Pictures and photographs appear in vibrant colors with sharp detail.
	Movie mode	Displays scenes in clearest detail. Presents great visuals, even in unsuitably-lit environments.

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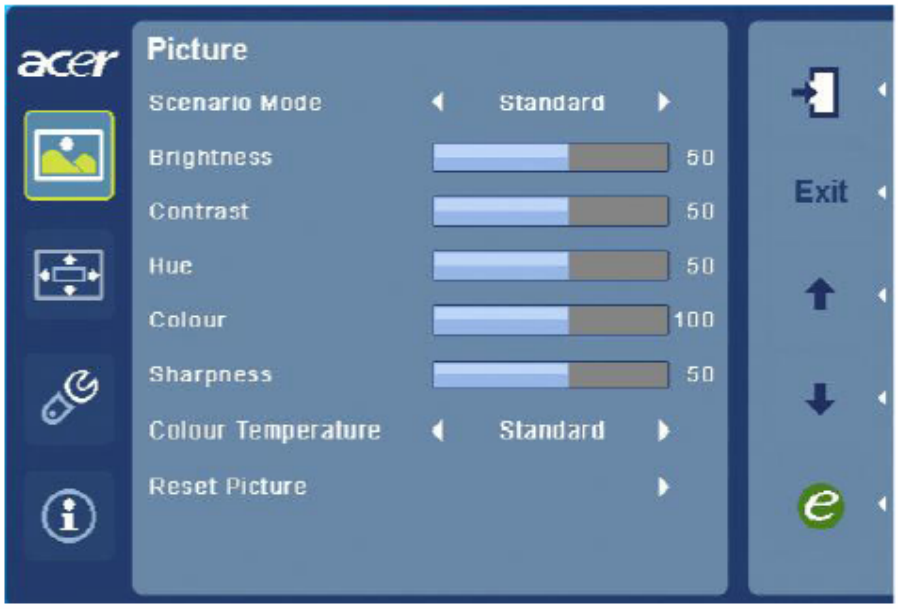
How to Adjust a Setting

The OSD can be used for adjusting the settings of your LCD Monitor.

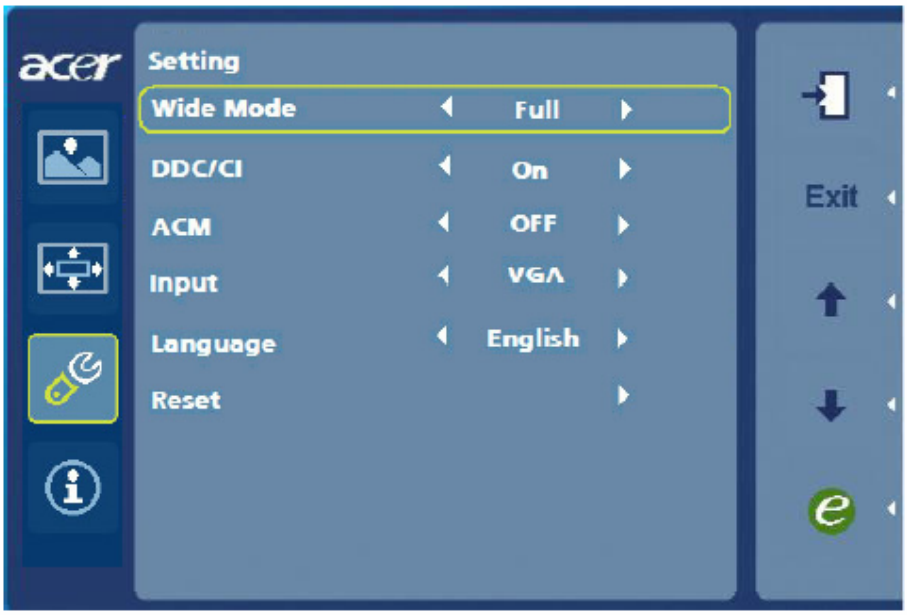
Press the **Menu** key to open the OSD. You can use the OSD to adjust the picture quality, OSD position and general settings. For advanced settings, please refer to following page:

Adjusting the picture quality



1. Press the Menu key to bring up the OSD.
2. Using the ⬆/⬇ keys, select Picture from the OSD. Then navigate to the picture element you wish to adjust.
3. Use the ⬆/⬇ keys to adjust the sliding scales.
4. The Picture menu can be used to adjust the current Brightness, Contrast, Colour Temp, Auto Config and other image-related qualities.

Adjusting the setting



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1 Press the Menu key to bring up the OSD.

2 Using the ⬆/⬇ keys, select Setting from the OSD. Then navigate to the feature you wish to adjust.

3 The Setting menu can be used to adjust the screen Menu Language and other important settings.

Product information

1 Press the Menu key to bring up the OSD.

2 Using the ⬆/⬇ keys, select Information from the OSD. Then the basic information of LCD monitor will show up for current input.

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How to Optimize The DOS-Mode

Plug And Play

Plug & Play DDC2B Feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bi-directional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.

This monitor will appear to be non-functional if there is no video input signal. In order for this monitor to operate properly, there must be a video input signal.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signals this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. Pressing a key on the keyboard, or clicking the mouse restores the display.

Using the Right Power Cord

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.
Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, and CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.
Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

Enter into the factory mode:

Turn off the power, press the “power” button to turn on monitor, keep pressing the “power” button simultaneity press the fifth button ,The factory OSD will be on the panel.

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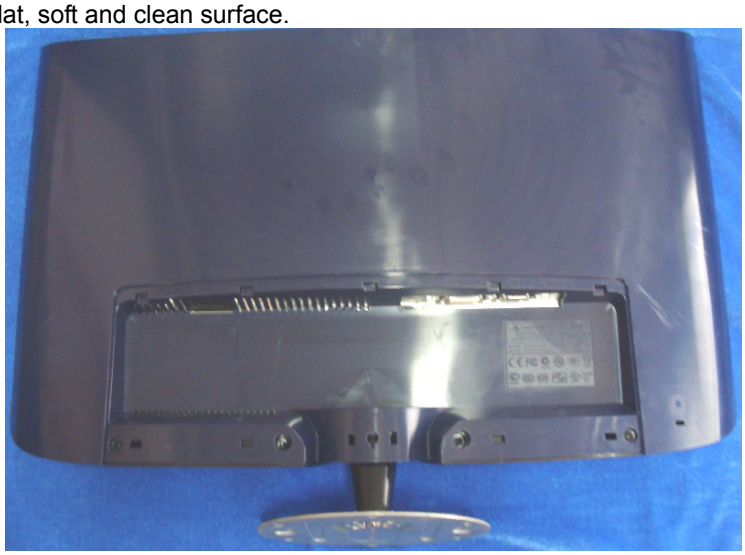
This chapter contains step-by-step procedures on how to disassemble the monitor-H235H for maintenance.

The tool for disassembly is as follows:

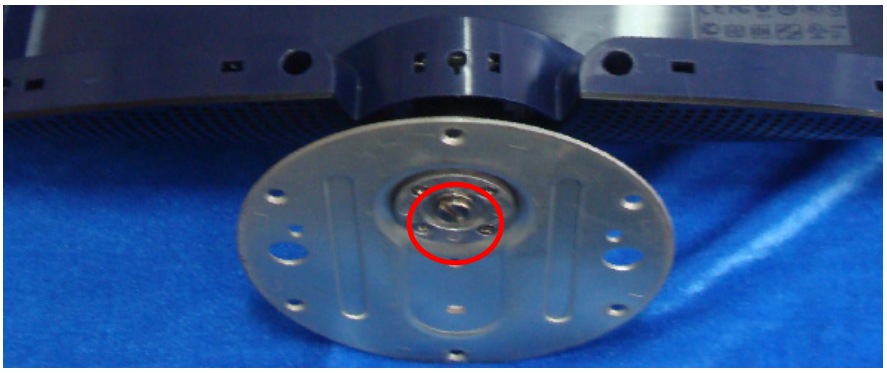
Screwdriver, Hexagonal screwdriver, Putty knife.

Disassembly Procedure

1.Lay the monitor on a flat, soft and clean surface.

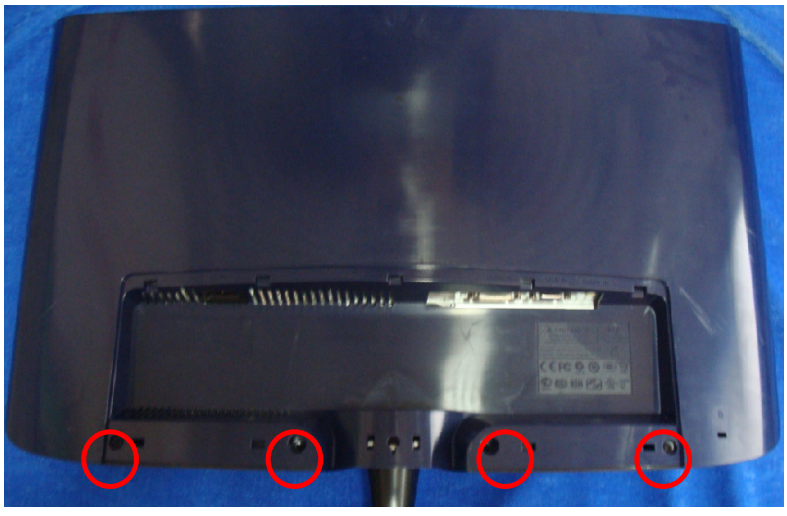


2. Remove the screw remarked in red to remove base,



3.Remove the rear cover and bezel.

(1) .Remove the rear cover



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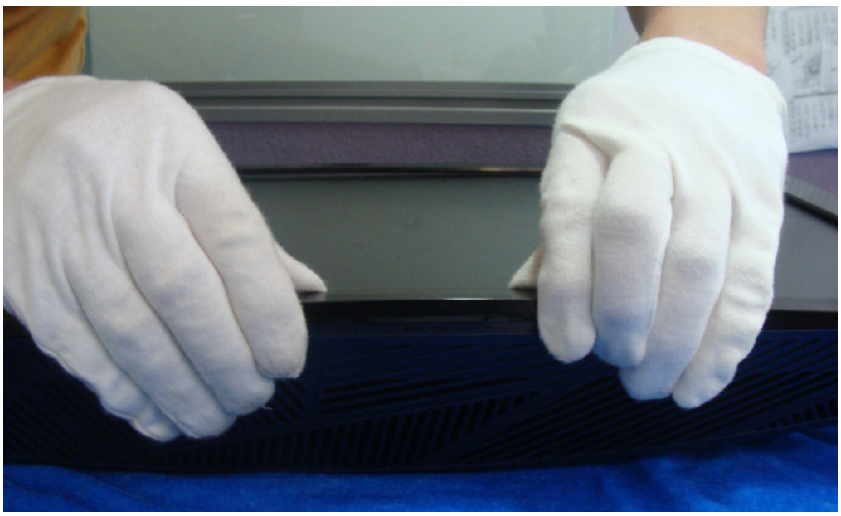
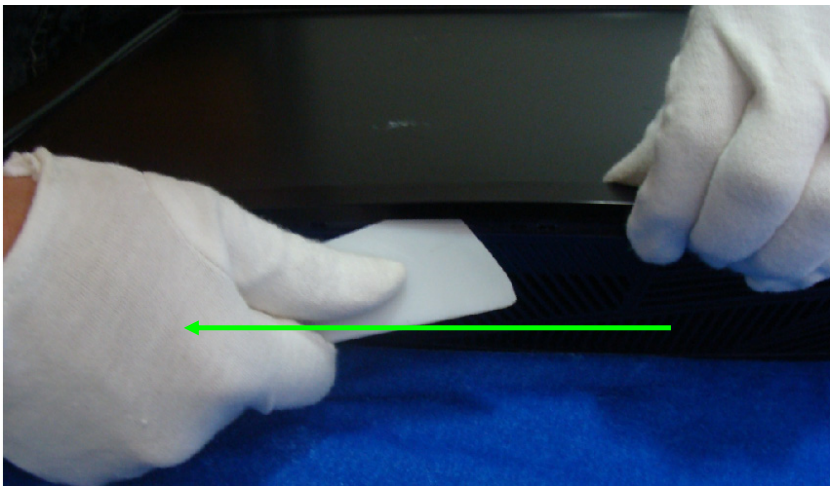
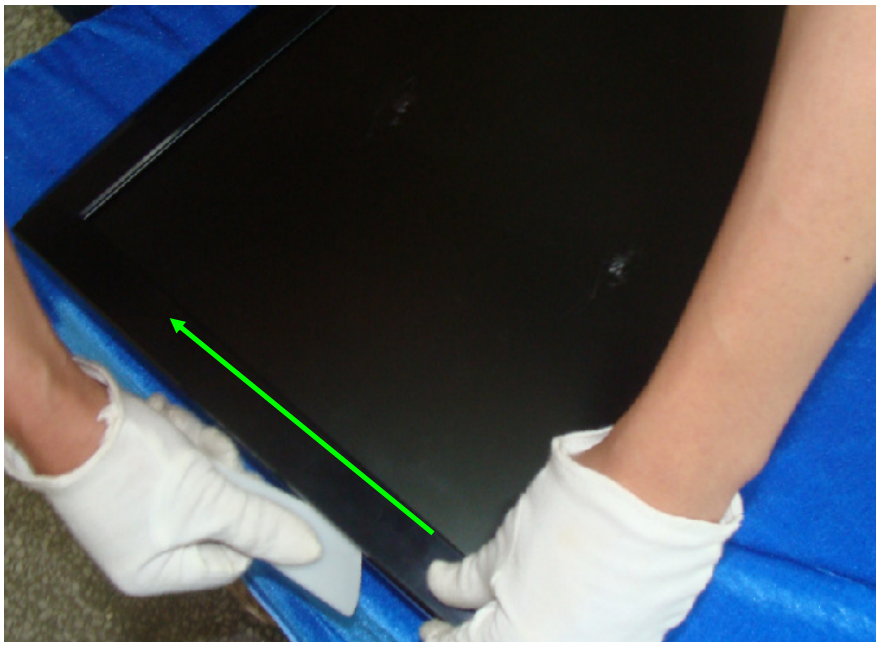
(2)Pry the monitor up then find out the hooks' position, use the tool (like the picture or other card) to insert into the gap of bezel and rear cover







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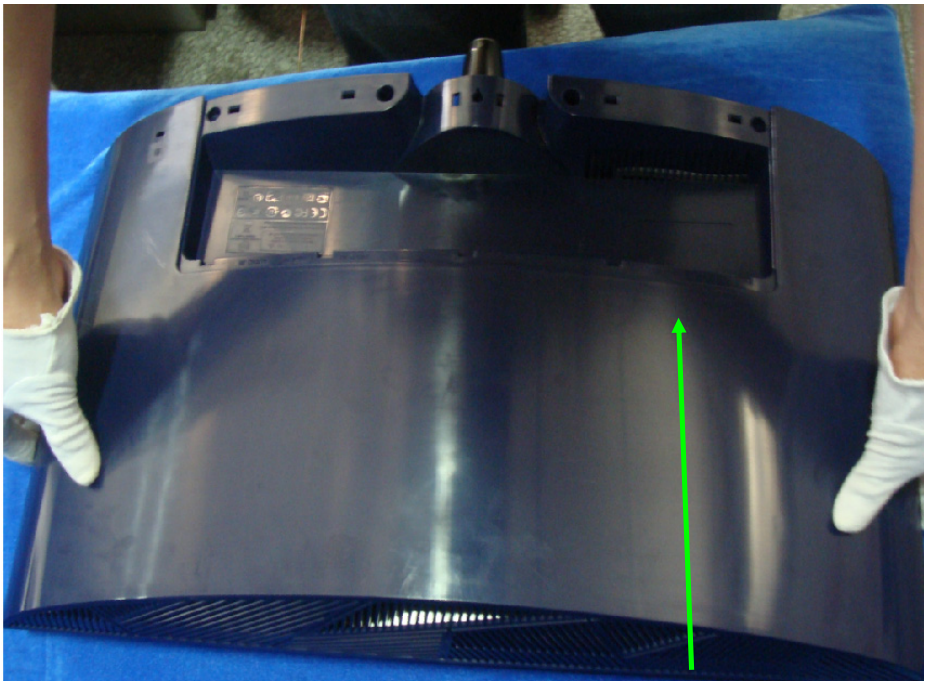
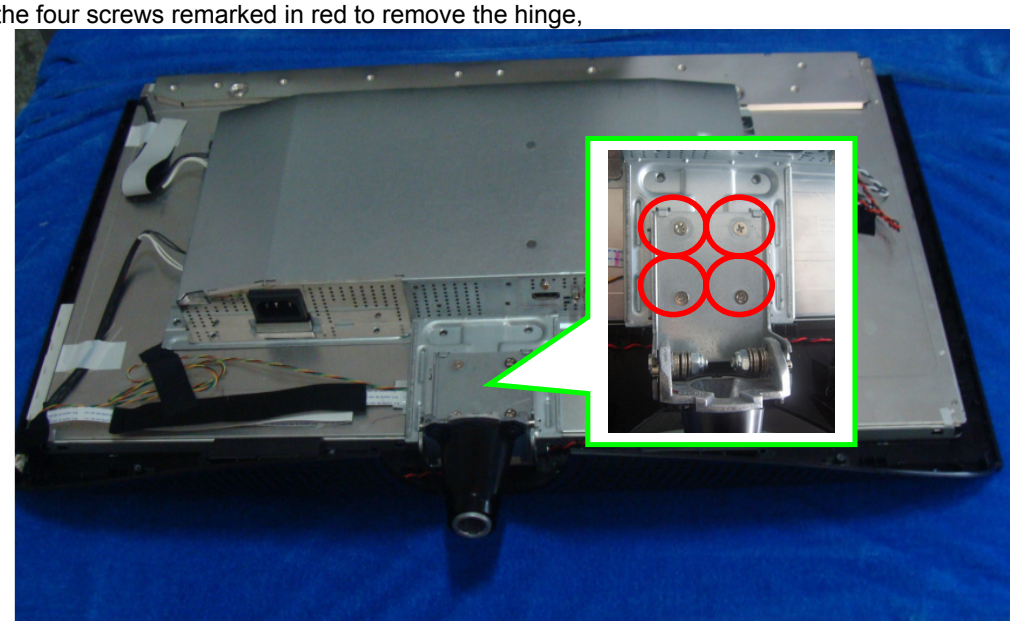
Turn over the monitor and take off the rear cover.



(3)Remove the four screws remarked in red to remove the hinge,



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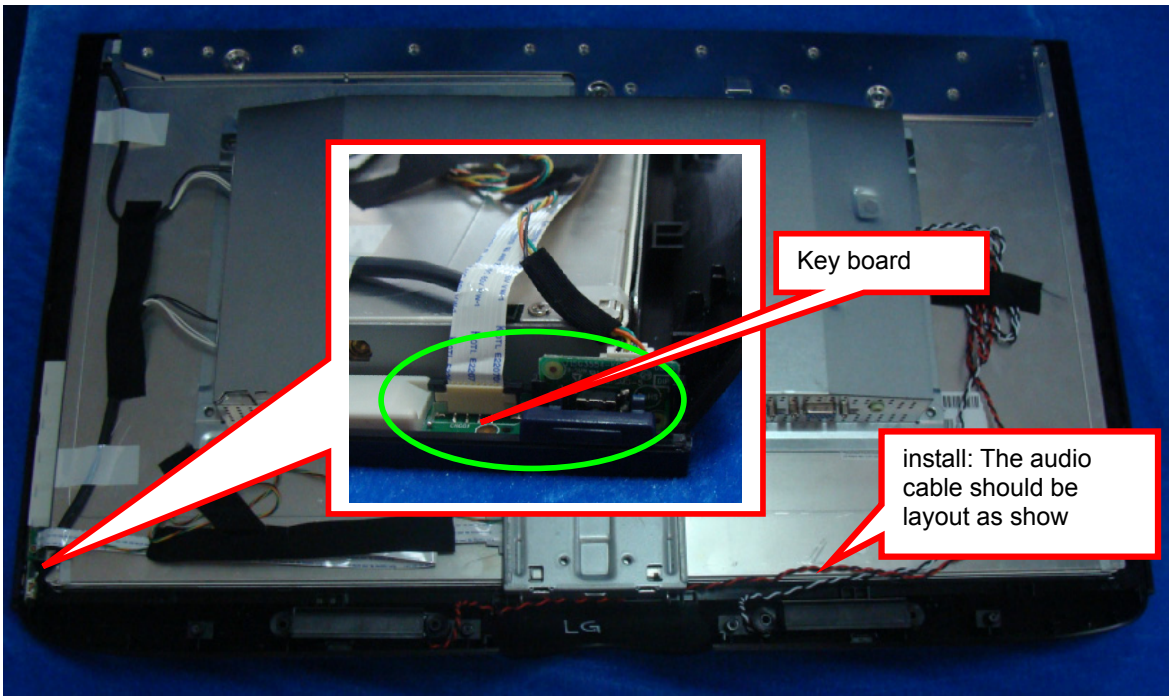
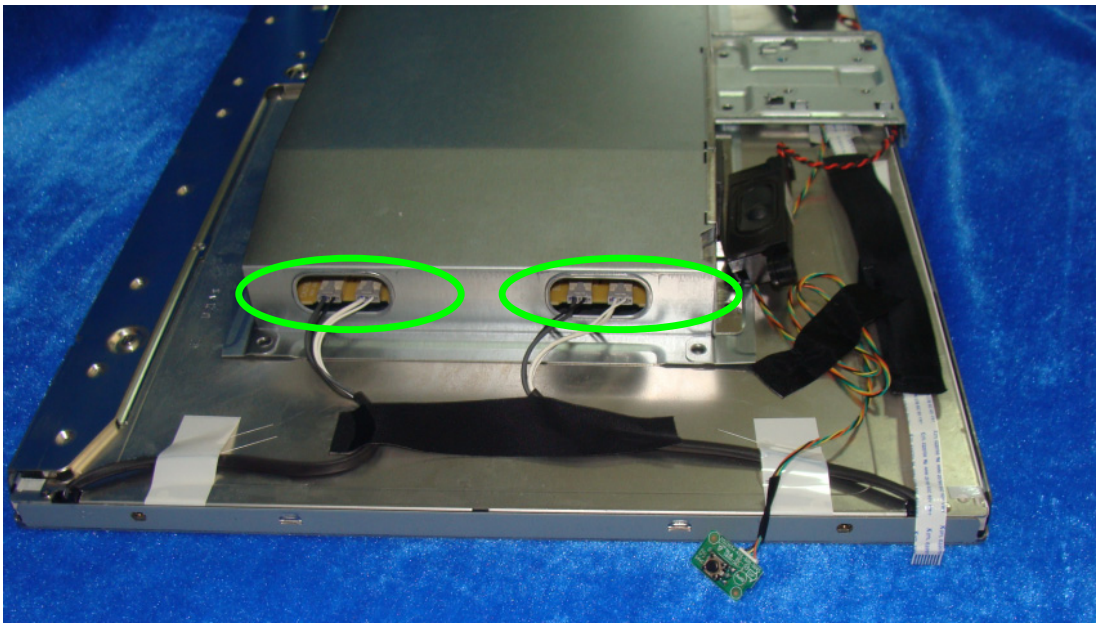
(4)Disconnected the connector remarked in green to remove the bezel.

PS: be careful to Disconnect the Key board connector, because the keyboard connector maybe damage.



4. Remove the lamp connectors and the LVDS cable to remove the panel.



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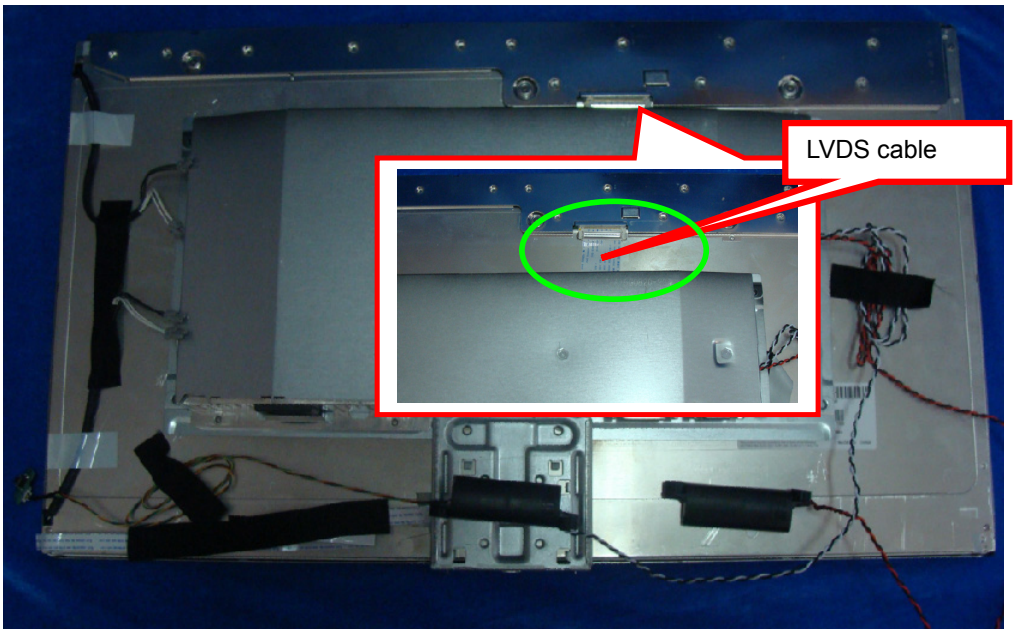
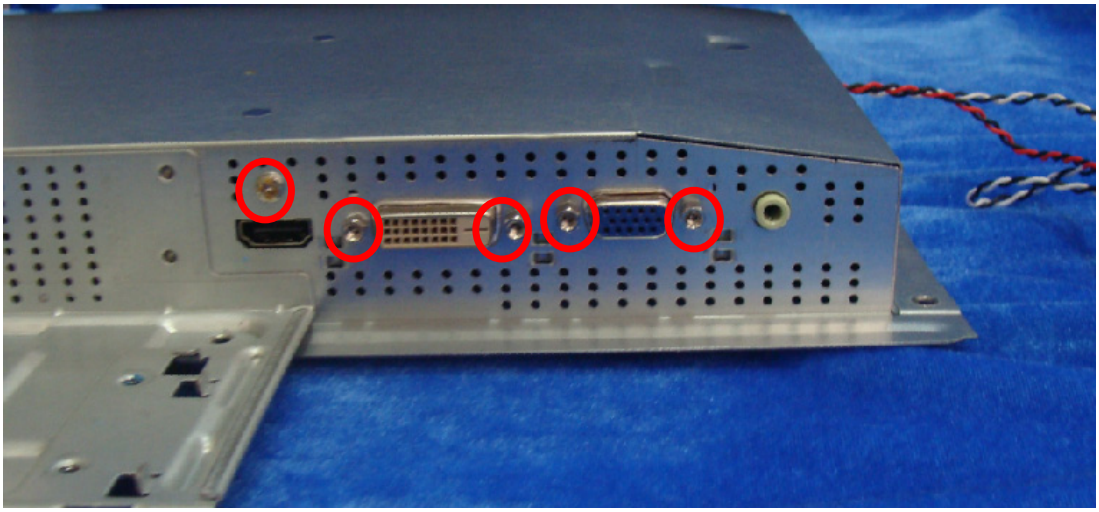


5. Remove the five screws remarked in red.



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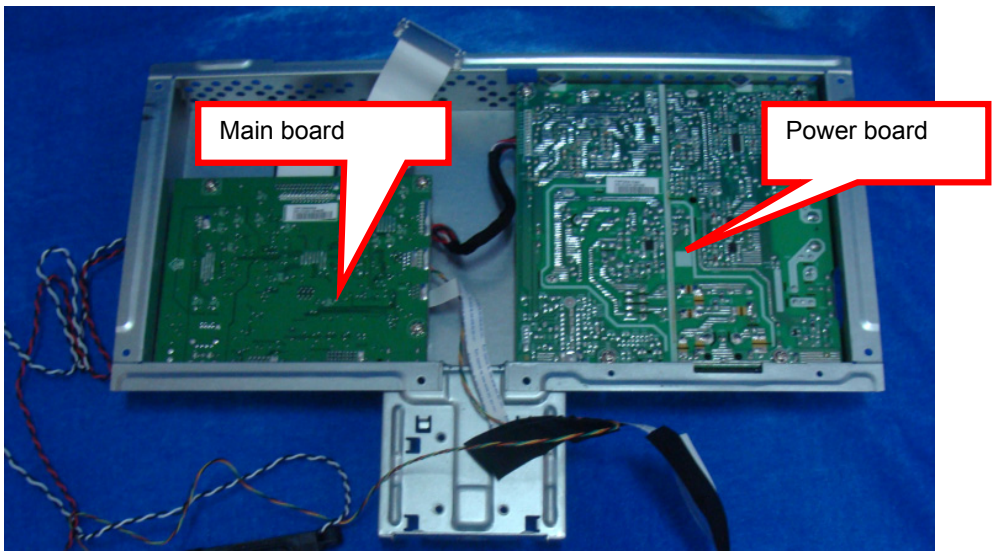
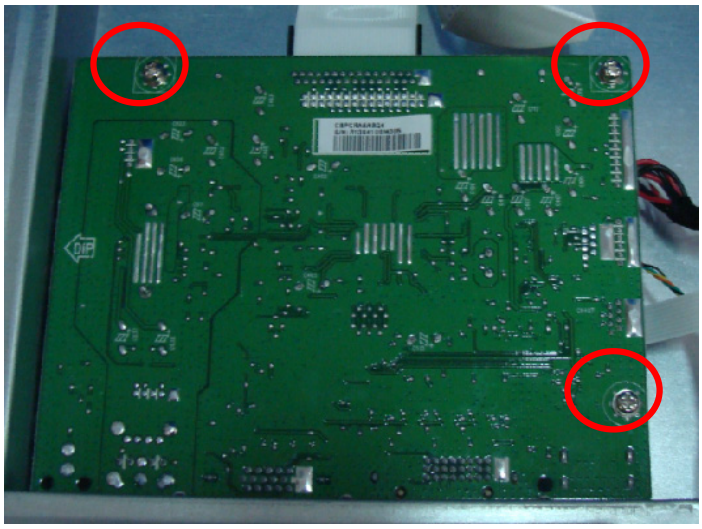
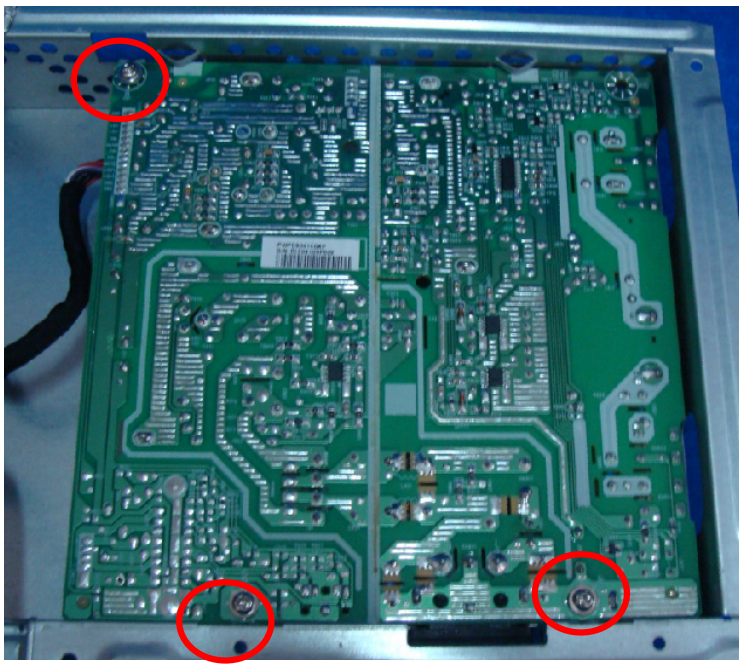
6. Remove the five screws remarked in red and disconnected remarked in green to remove the main board and power board.







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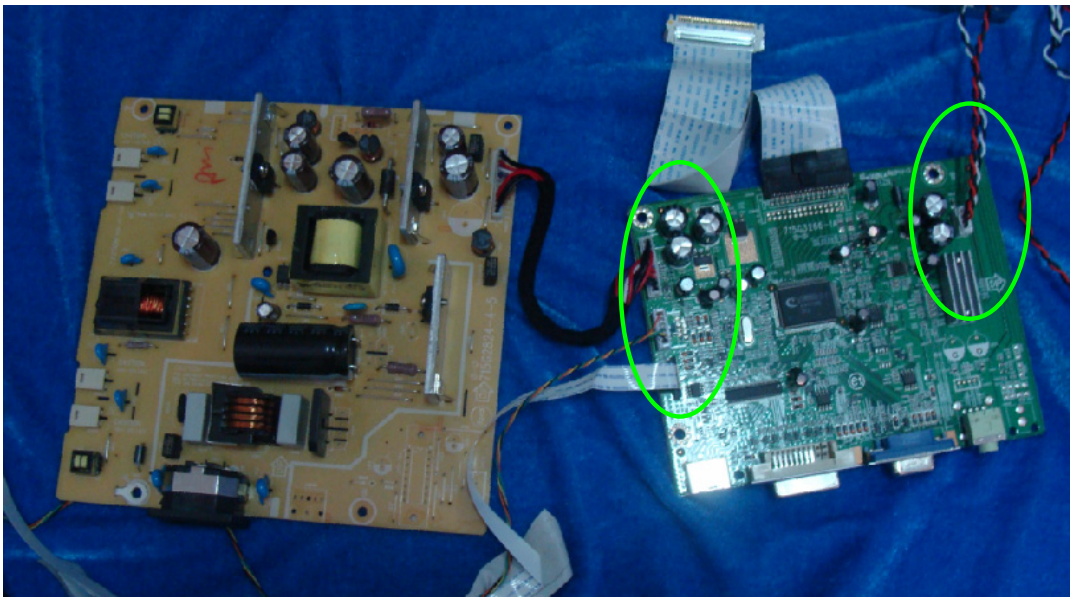

7.The panel

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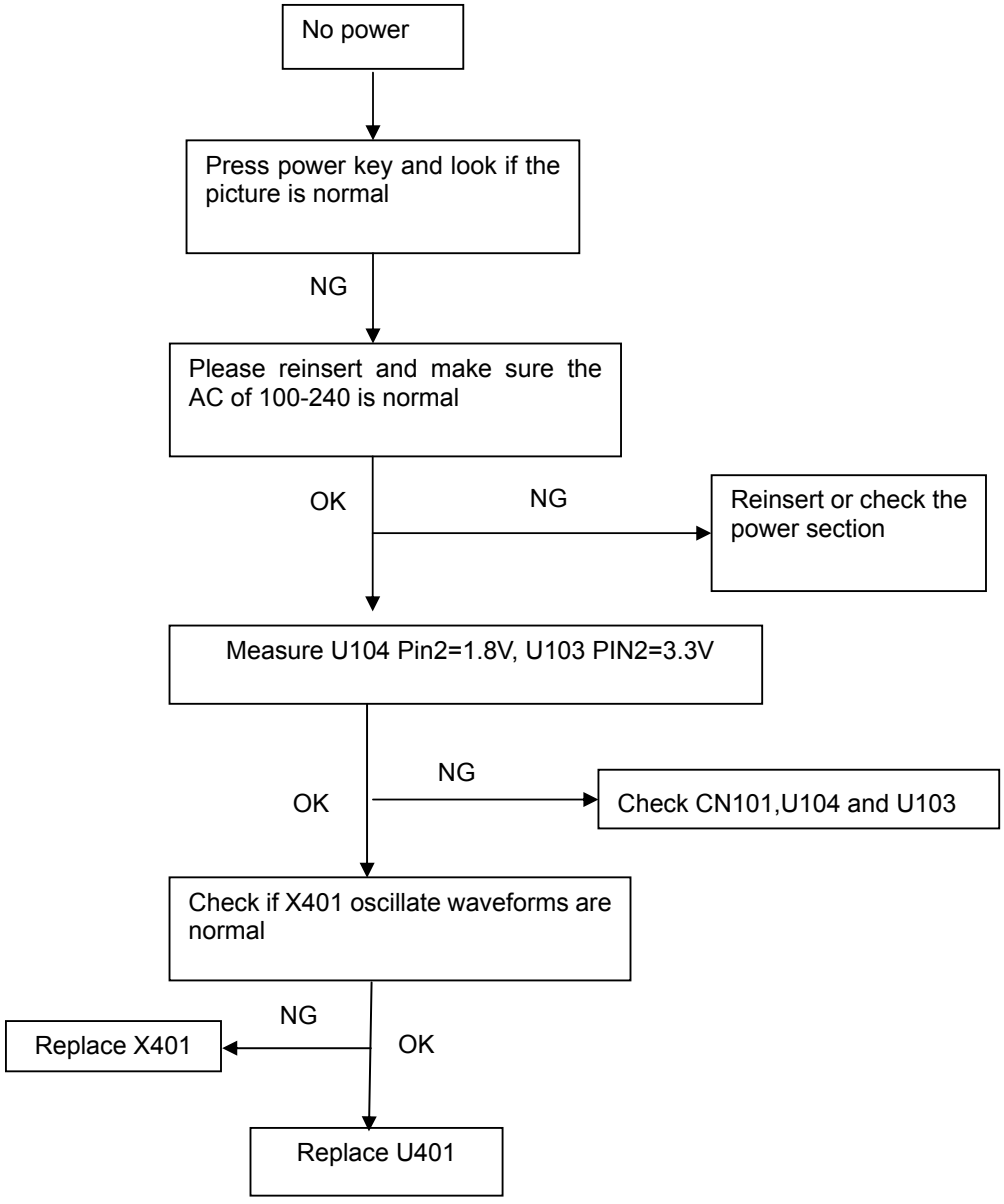
Troubleshooting

Chapter 4

This chapter provides troubleshooting information for the H235H:

1. No Power



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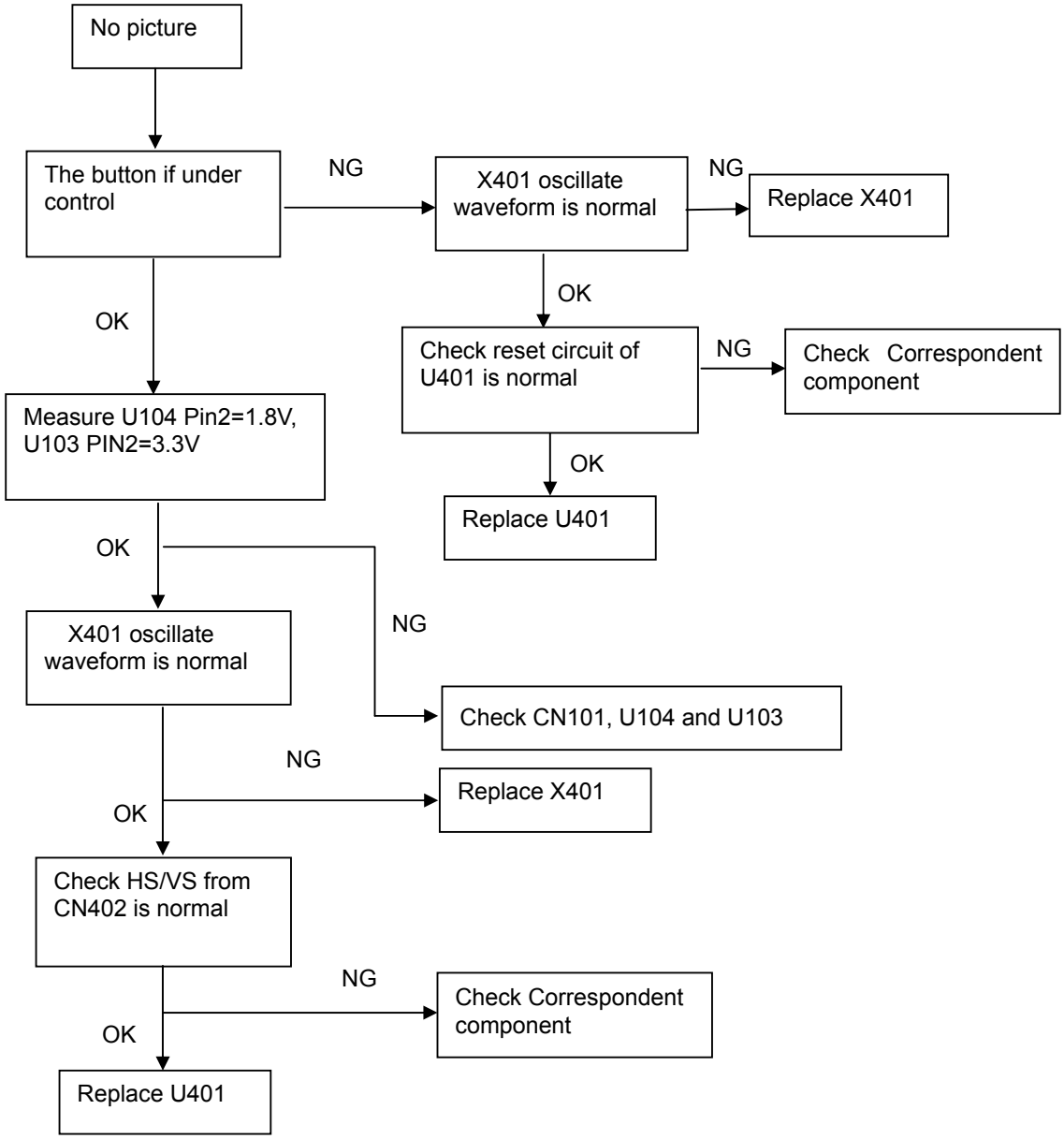
2. No Picture (LED is orange)



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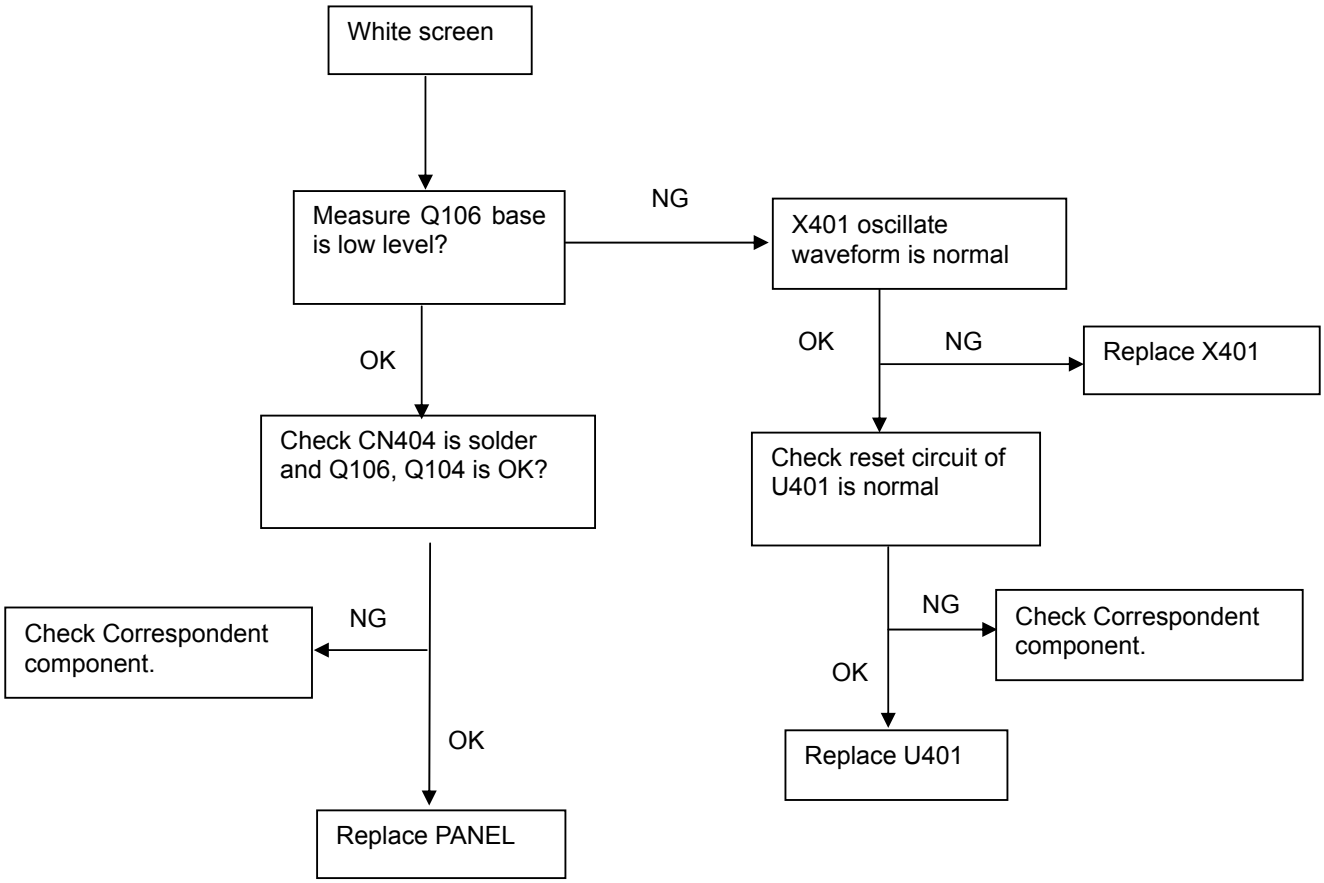
3. Panel Power Circuit



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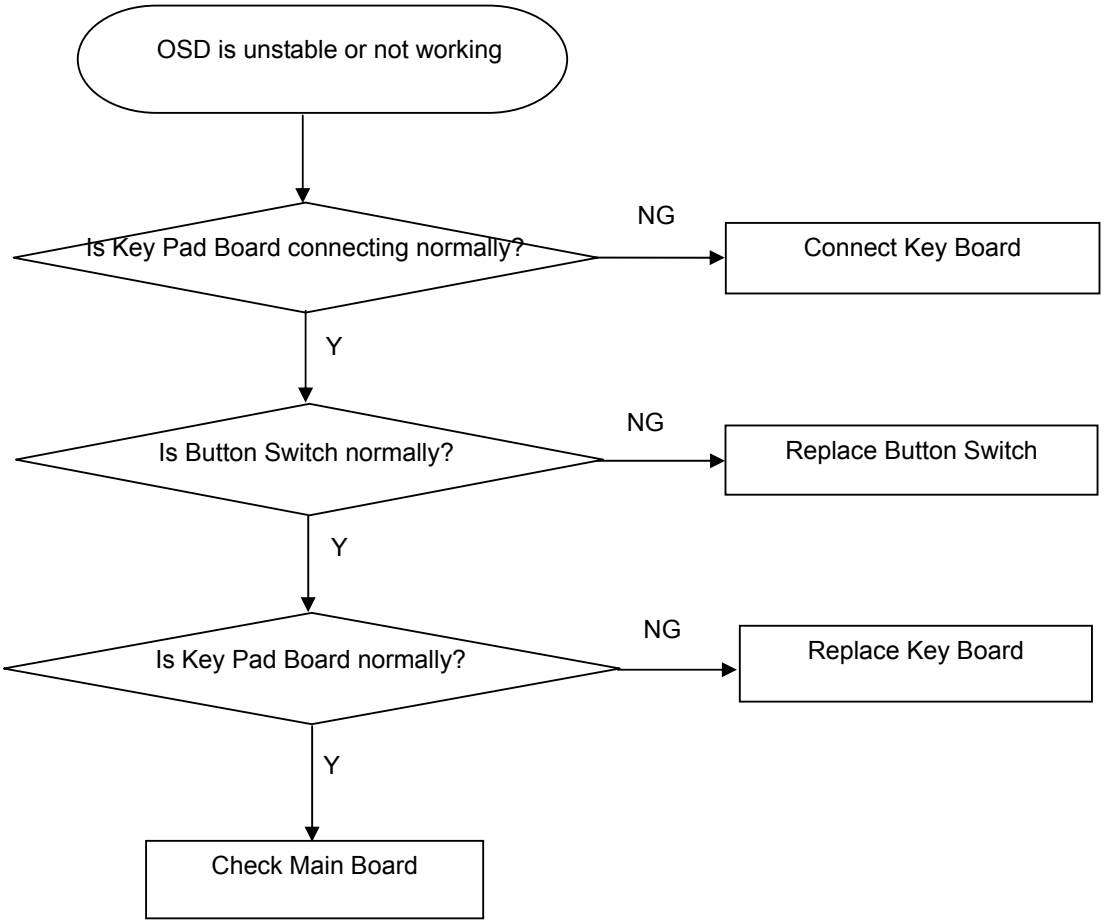
4. Key Board



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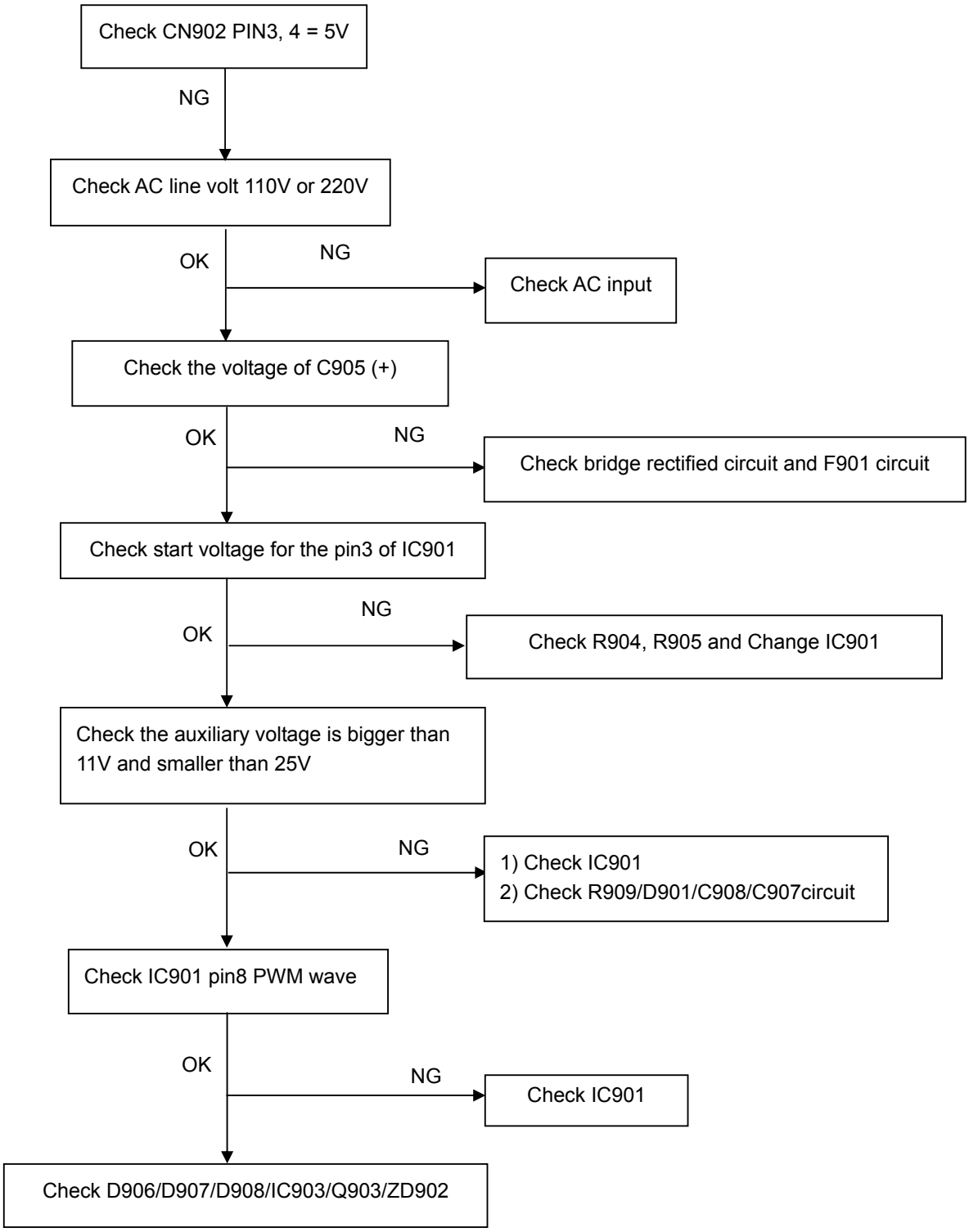
5. Power Board

1) No power



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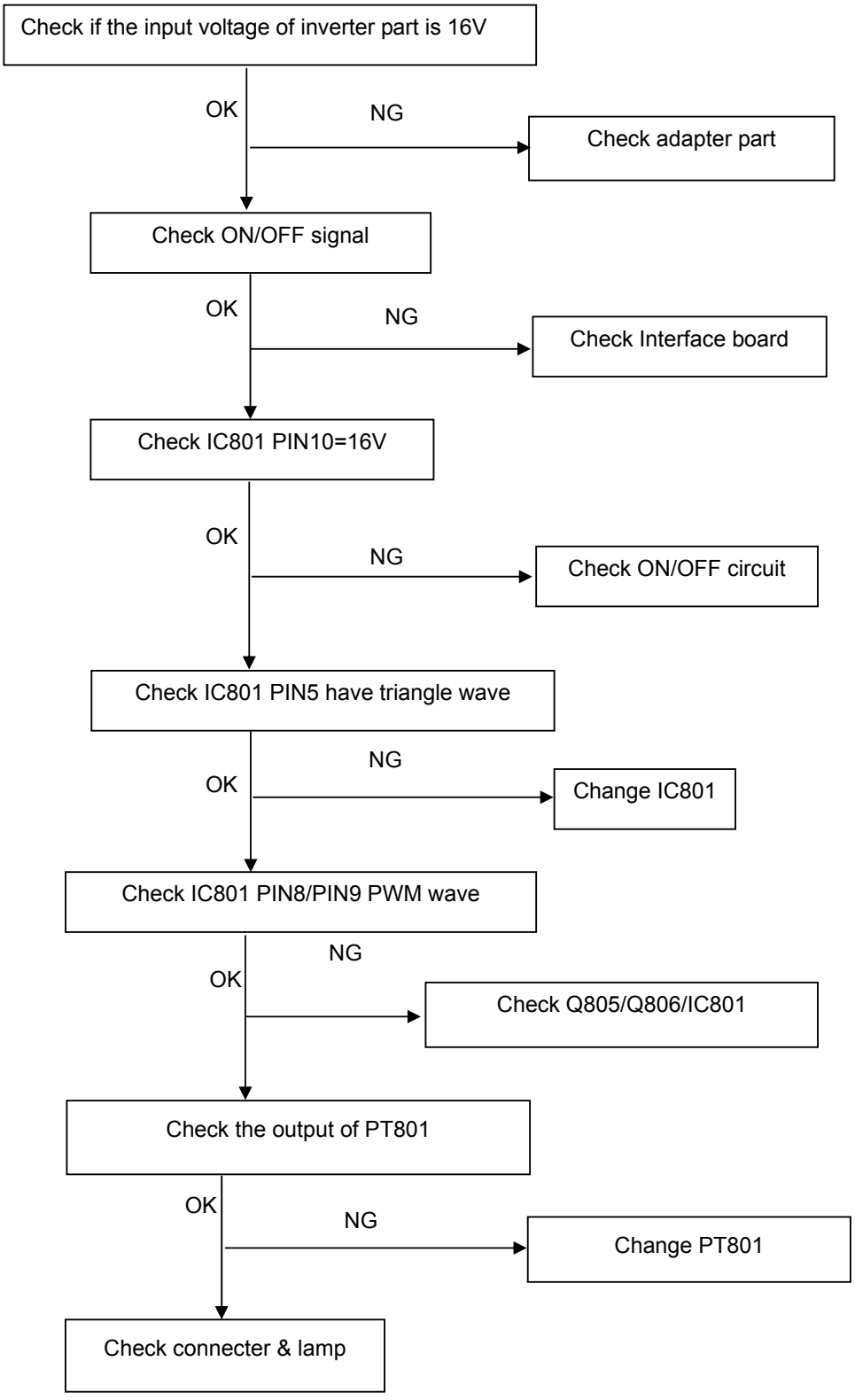
2.) No Backlight



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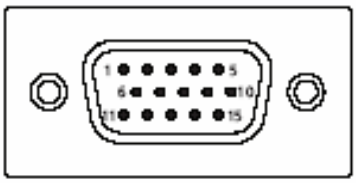
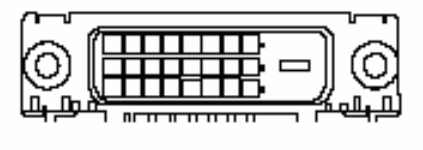
D-sub connect and DVI connect:



15-Pin Color Display Signal Cable

PIN No.	Description	PIN No.	Description
1	Red	9	+5 V
2	Green	10	Logic ground
3	Blue	11	Monitor ground
4	Monitor ground	12	DDC-serial data
5	DDC-return	13	H-sync
6	R-ground	14	V-sync
7	G-ground	15	DDC-serial clock
8	B-ground		



24-Pin Color Display Signal Cable

PIN No.	Description	PIN No.	Description
1	TMDS data 2-	13	NC
2	TMDS data 2+	14	+5 V power
3	TMDS data 2/4 shield	15	GND (return for +5 V hsync.vsync)
4	NC	16	Hot-plug detection
5	NC	17	TMDS data 0-
6	DDC clock	18	TMDS data 0+
7	DDC data	19	TMDS data 0/5 shield
8	NC	20	NC
9	TMDS data 1-	21	NC
10	TMDS data 1+	22	TMDS clock shield
11	TMDS data 1/3 shield	23	TMDS clock+
12	NC	24	DDC TMDS clock-

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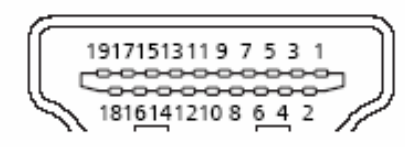

19-pin color display signal cable

PIN No.	Description	PIN No.	Description
1	TMDS Data2+	2	TMDS Data2 Shield
3	TMDS Data2–	4	TMDS Data1+
5	TMDS Data1 Shield	6	TMDS Data1–
7	TMDS Data0+	8	TMDS Data0 Shield
9	TMDS Data0–	10	TMDS Clock+
11	TMDS Clock Shield	12	TMDS Clock–
13	CEC	14	Reserved (N.C. on device)
15	SCL	16	SDA
17	DDC/CEC Ground	18	+5V Power
19	Hot Plug Detect		

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FRU (Field Replaceable Unit) List

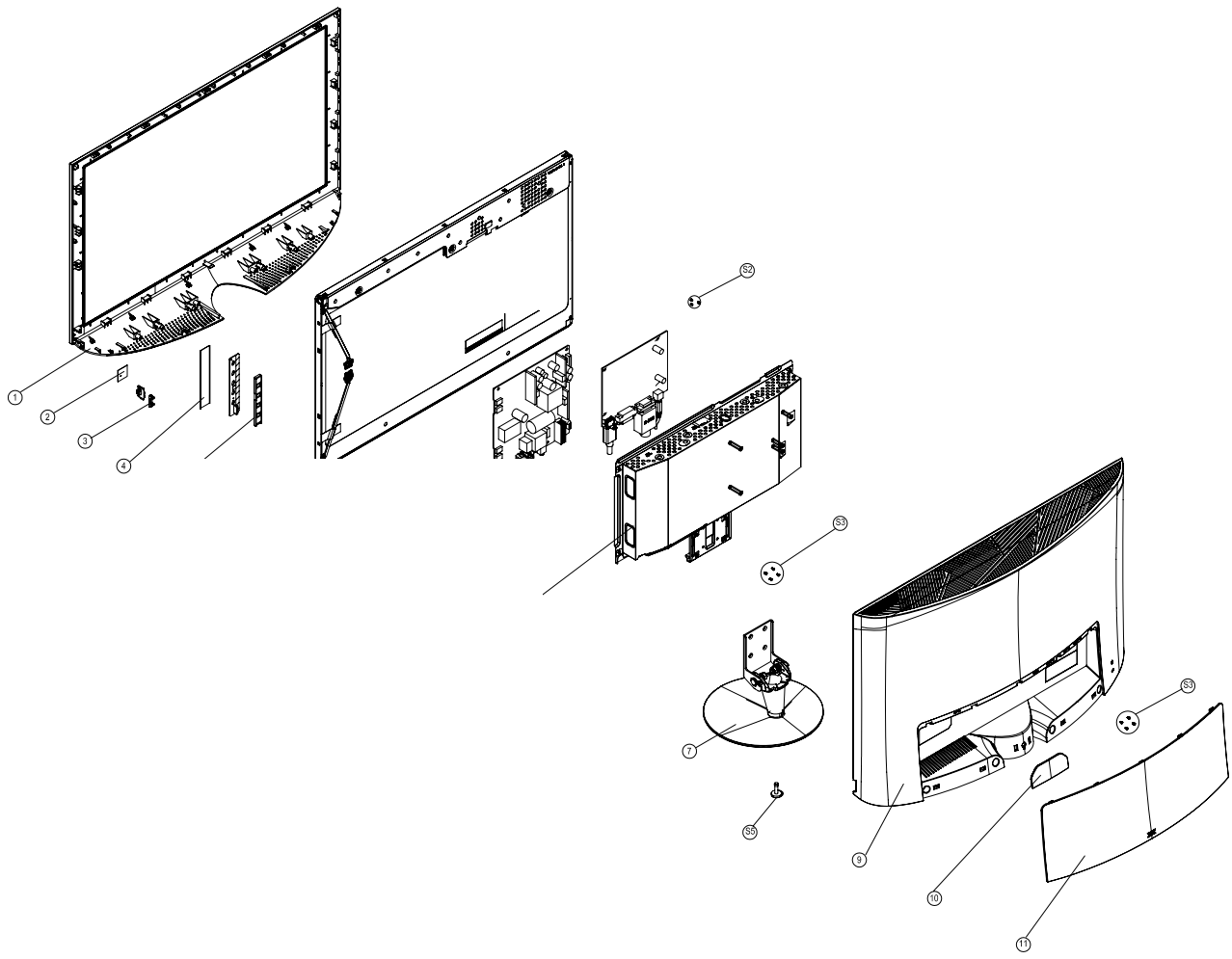
Chapter 6

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of H235H. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

NOTE: Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel (http://aicsl.acer.com.tw/spl/). For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

Exploded Diagram (Model: H235H)



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Item	Description	TPV Part No.	ACER Part NO.	Q`ty
1	BEZEL	A34G1361AGBA1B0130	60.LHF0B.003	1
2	POWER MYLAR	Q05G6104 1		1
3	POWER BUTTON	A33G0714BDZ 1L0100		1
4	LED MYLAR	Q05G6104 1		1
5	LED COVER	A33G0713AGC 1L0100		1
6	MAIN FRAME	A15G0820101	60.LHF0B.006	1
7	BASE ASS'Y	Q37G0151011	60.LHF0B.005	1
9	REAR COVER	A34G1362AEOA1M0100	60.LHF0B.004	1
10	CABLE COVER	A33G0715AGB 1X0100		1
11	IO COVER	A34G1365AGB 1B0100		1
S1	SCREW	0G1G1130 8120		3
S2	SCREW,42-D020523	0M1G1730 6120		3
S3	SCREW	0Q1G 930 8 47 CR3		4
S4	SCREW	0M1G 140 6125		4

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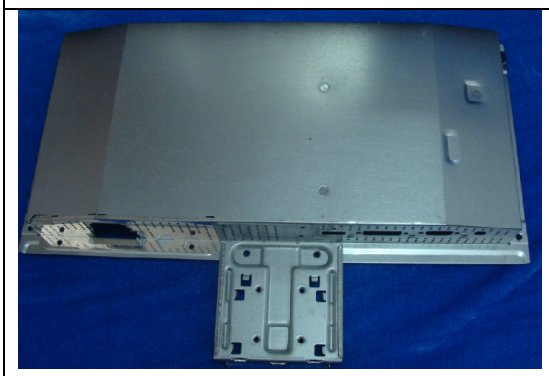
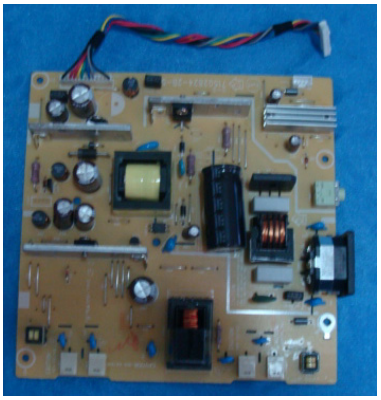
Part List

Above picture show the description of the following component.

Picture	Description	TPV Part No.	ACER Part NO.
	Main_frame	A15G0820101	60.LHF0B.006
	Bezel	A34G1361AGBA1B0130	60.LHF0B.003
	Panel	750GLG230F1A33N000	LK.23006.001
	Power Board	PWPC9D41EQKP	55.LHF0B.002

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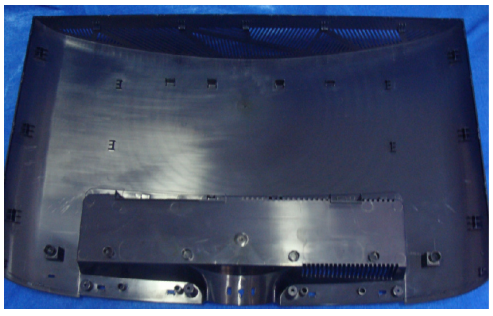
	Main Board	CBPCRA6ABQ4	55.LHF0B.001
	BASE ASS'Y	Q37G0151011	60.LHF0B.005
		A34G1136AEM 1B0130	
	Rear cover	A34G1362AEOA1M0100	60.LHF0B.004

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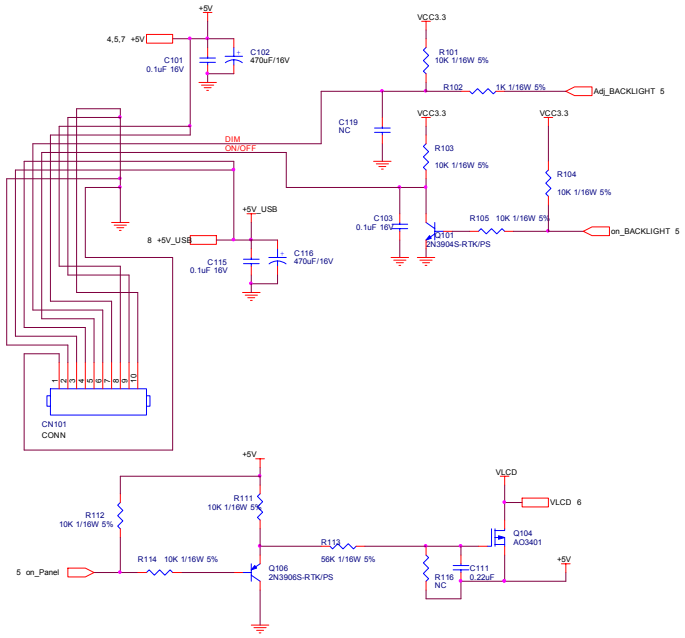
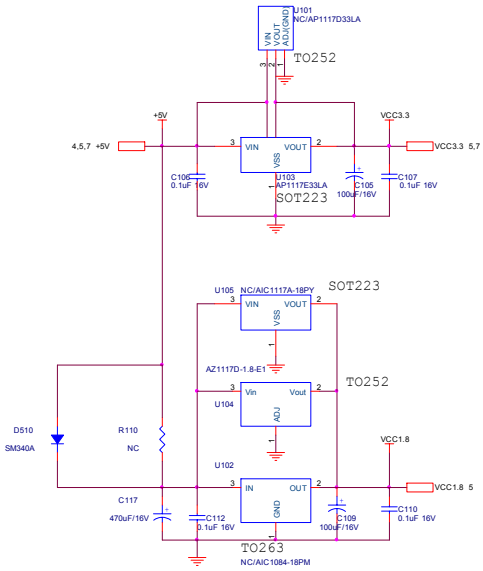
Main Board





T P V (Top Victory Electronics Co., Ltd.)		OEM MODEL	acer H235H	Size	B
版 版 版 版	G3266-1B-X-X-3-090512	TPV MODEL		Rev	C
Key Component	2.0.POWER	PCB NAME	715G3266-E	备注	<备注>
Date	Tuesday, May 12, 2009	Sheet	3 of 8		

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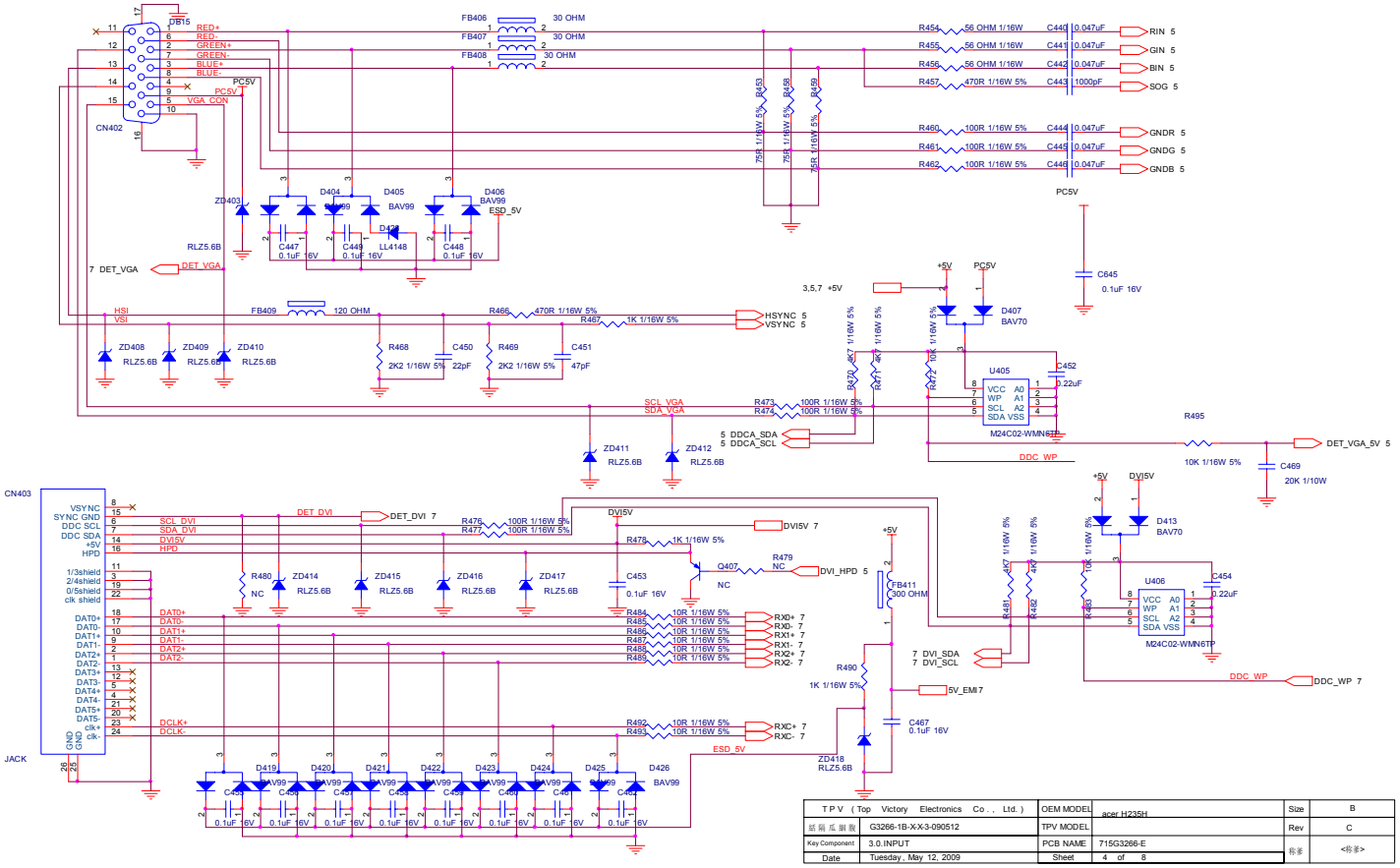

T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL	acer H235H	Size	B
版 篇 瓦 旗 股	G3266-1B-X-X-3-090512	TPV MODEL		Rev	C
Key Component	3.0.INPUT	PCB NAME	715G3266-E	称 重	<称重>
Date	Tuesday, May 12, 2009	Sheet	4 of 8		

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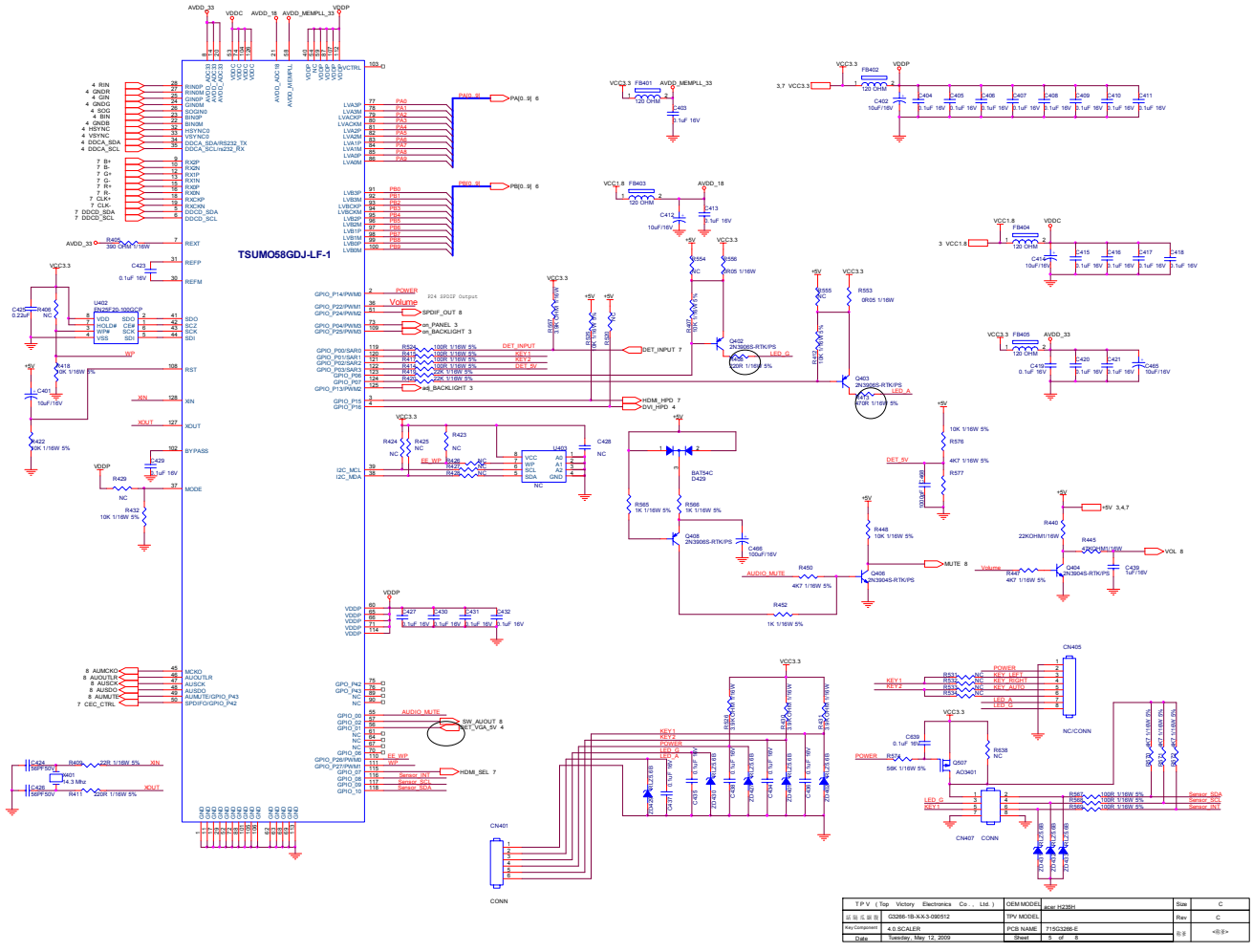

T P V (Top Victory Electronics Co., Ltd.)	OEM MODEL	acer H233H	Size C
G3266-1B-X-X-3-090512	TPV MODEL		Rev C
Key Component 4.0.SCALER	PCB NAME	715G3266-E	
Date Tuesday, May 12, 2009	Sheet 5 of 8		

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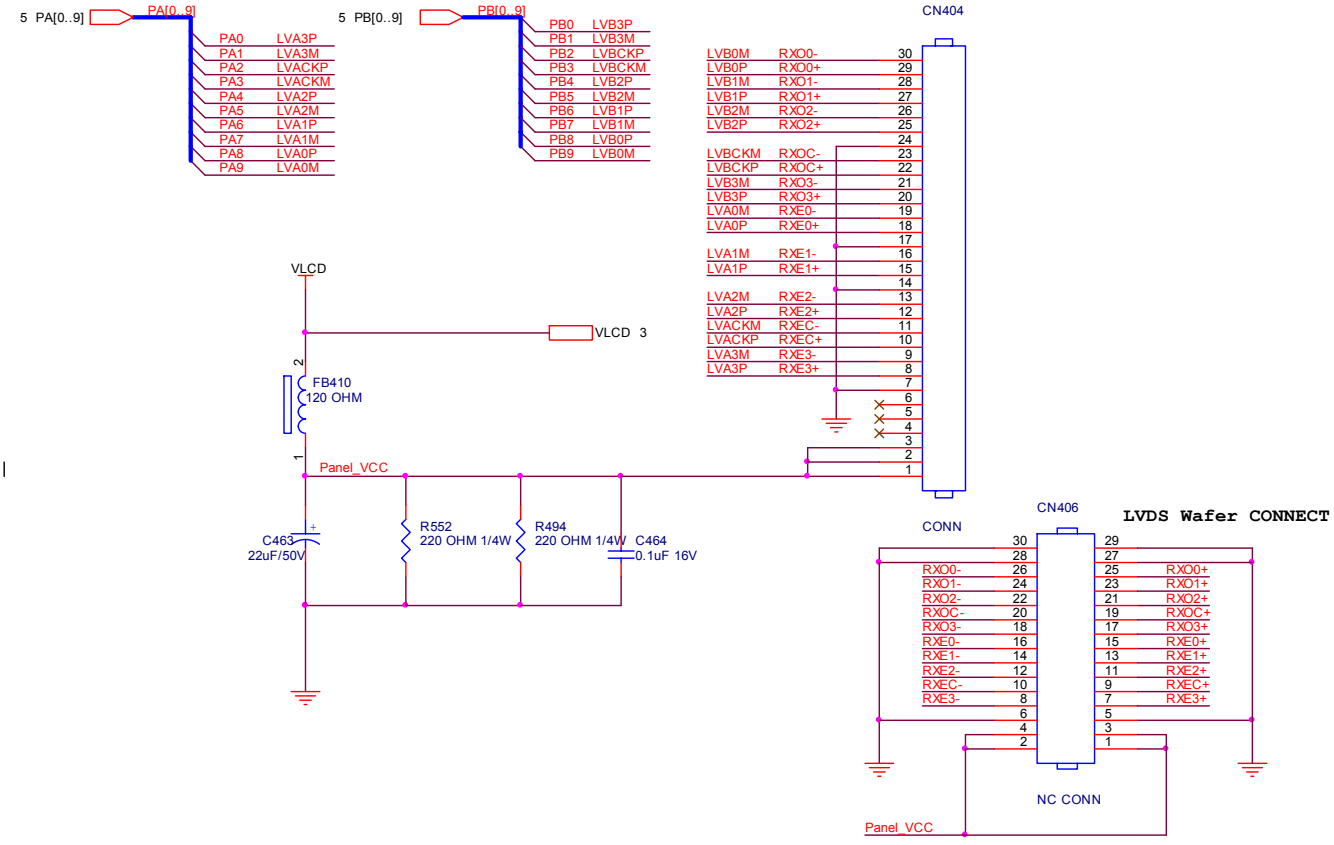

T P V （Top Victory Electronics Co . , Ltd. ）		OEM MODEL	acer H235H	Size	A
筮 隔 瓜 綱 腹	G3266-1B-X-X-3-090512	TPV MODEL		Rev	C
Key Component	5.0.PANEL INTERFACE	PCB NAME	715G3266-E	称爹	<称爹>
Date	Tuesday , May 12, 2009	Sheet	6 of 8		

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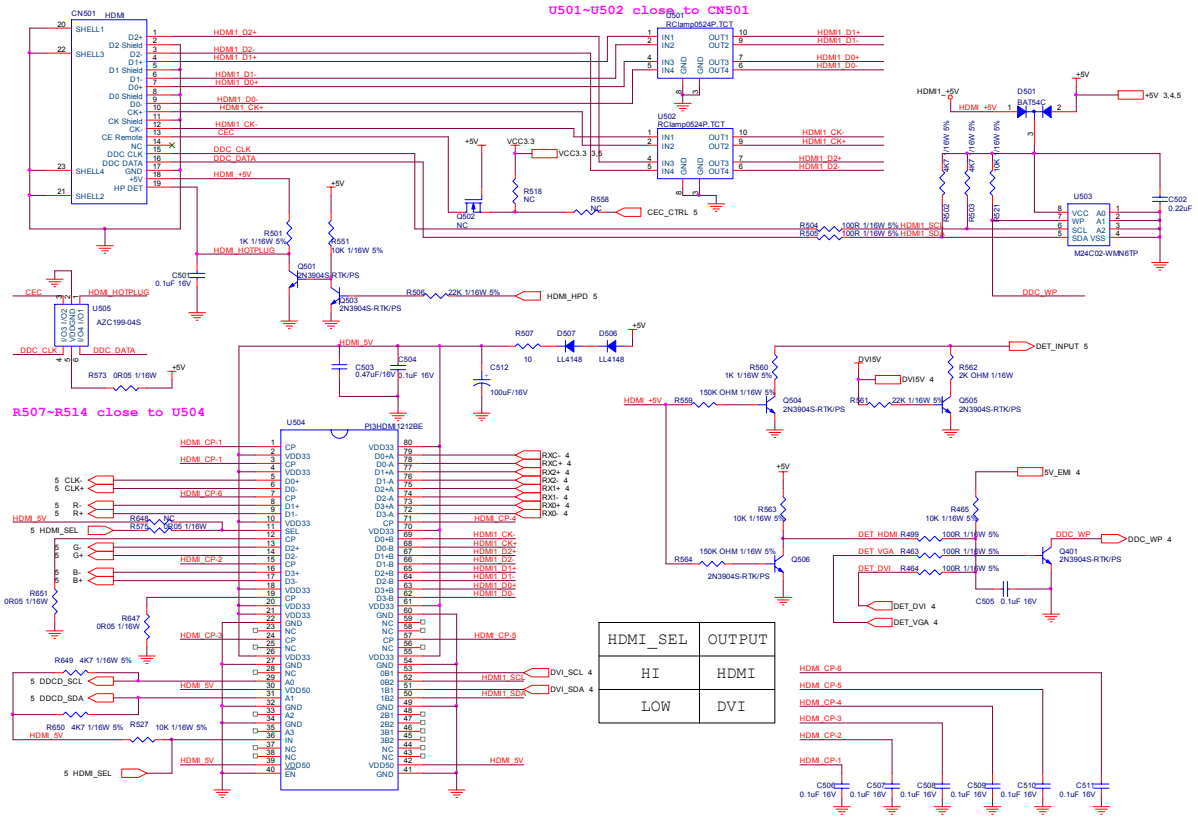

HDMI_SEL	OUTPUT
HI	HDMI
LOW	DVI

T P V (Top Victory Electronics Co., Ltd.)		OEM MODEL	acer H235H	Size	Custom
后前瓜脑股	G3266-1B-X-X-3-090512	TPV MODEL		Rev	C
Key Component	6.0.HDMI INPUT	PCB NAME	715G3266-E	标准	<标准>
Date	Tuesday, May 12, 2009	Sheet	7 of 8		

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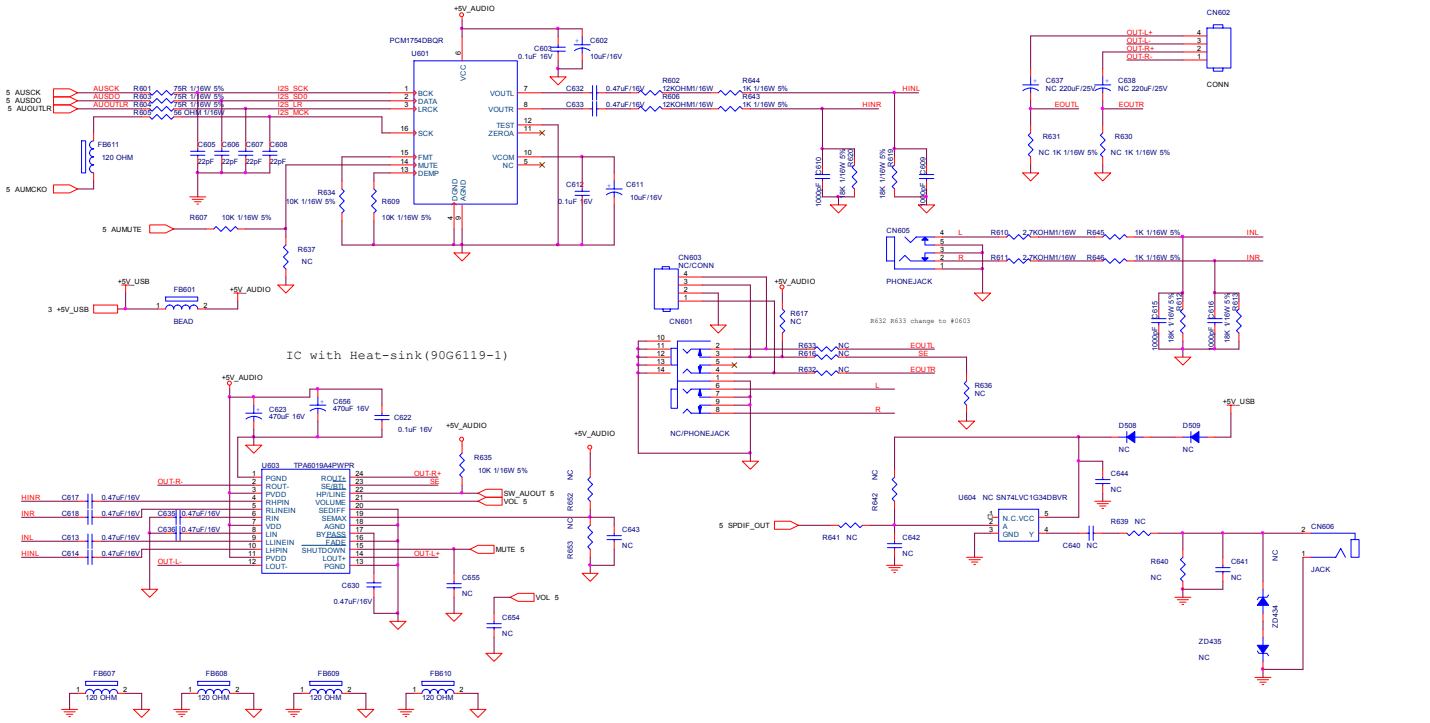

T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL	acer H235H	Size	Custom
版 版 名 稱 號	G3266-1B-X-X-3-090512	TPV MODEL		Rev	C
Key Component	7.0 AUDIO	PCB NAME	715G3266-E		
Date	Tuesday, May 12, 2009	Sheet	8 of 8	檢 章	<檢章>

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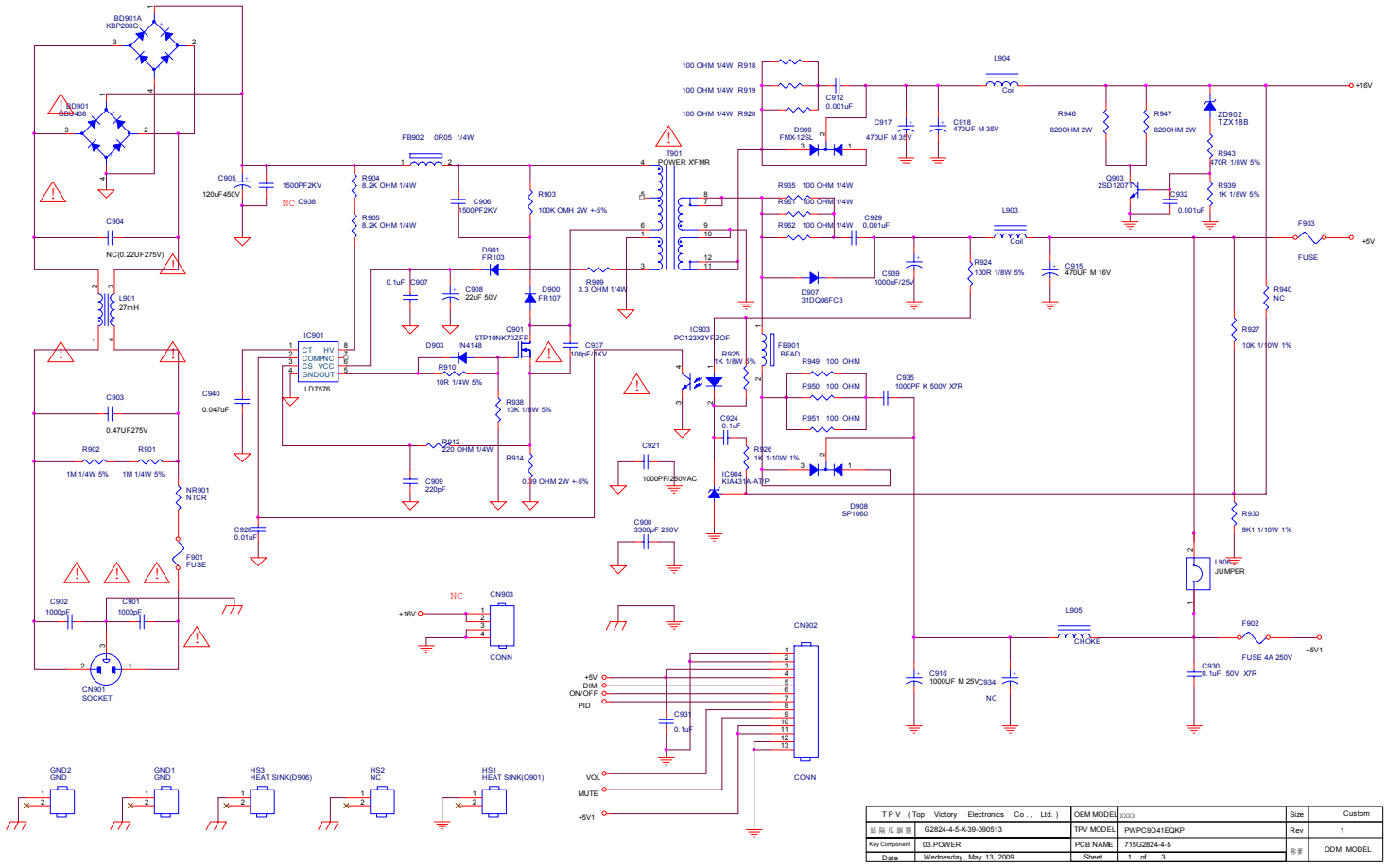
Power board



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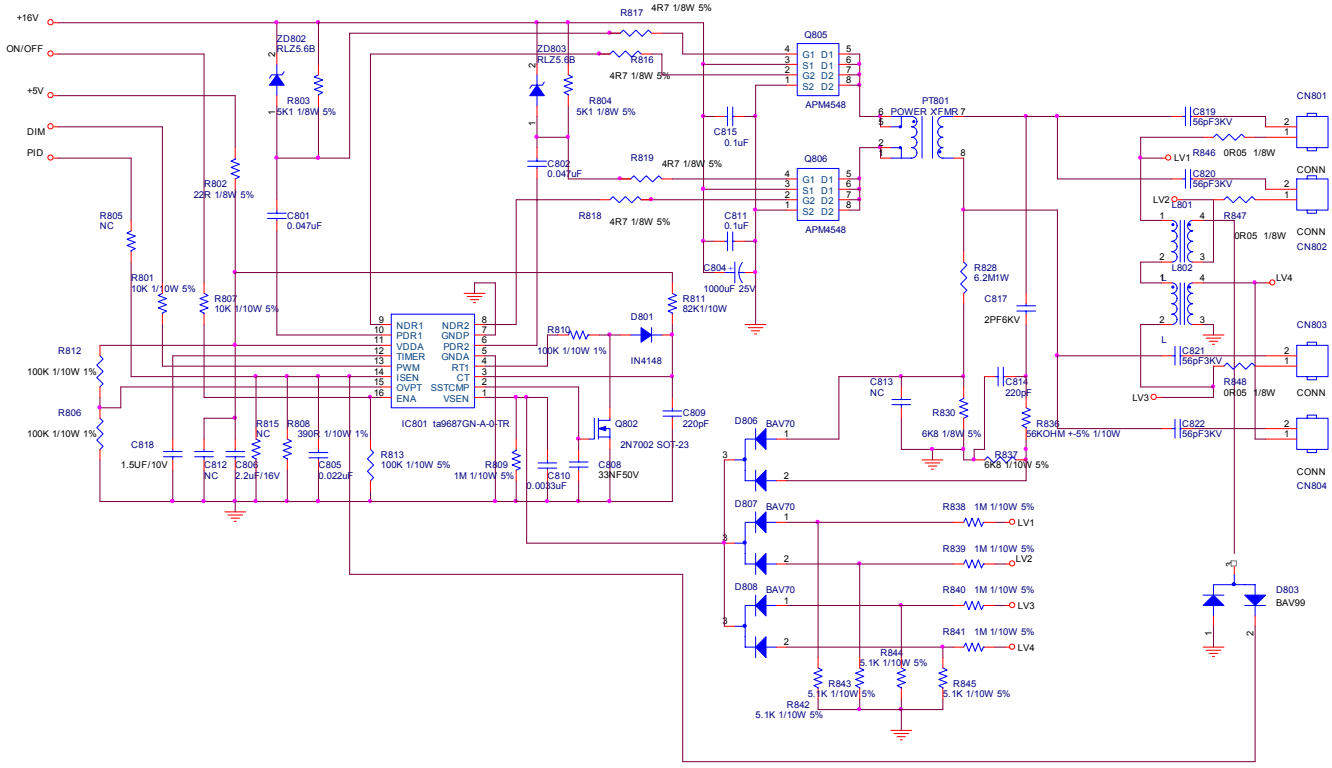

T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL	xxxx	Size	Custom
延 陽 瓜 鎖 覆	G2824-4-5-X-39-090513	TPV MODEL	PWPC9D41EQKP	Rev	1
Key Component	02.INVERTER	PCB NAME	715G2824-4-5	称 多	ODM MODEL
Date	Wednesday , May 13, 2009	Sheet	1 of 3		

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